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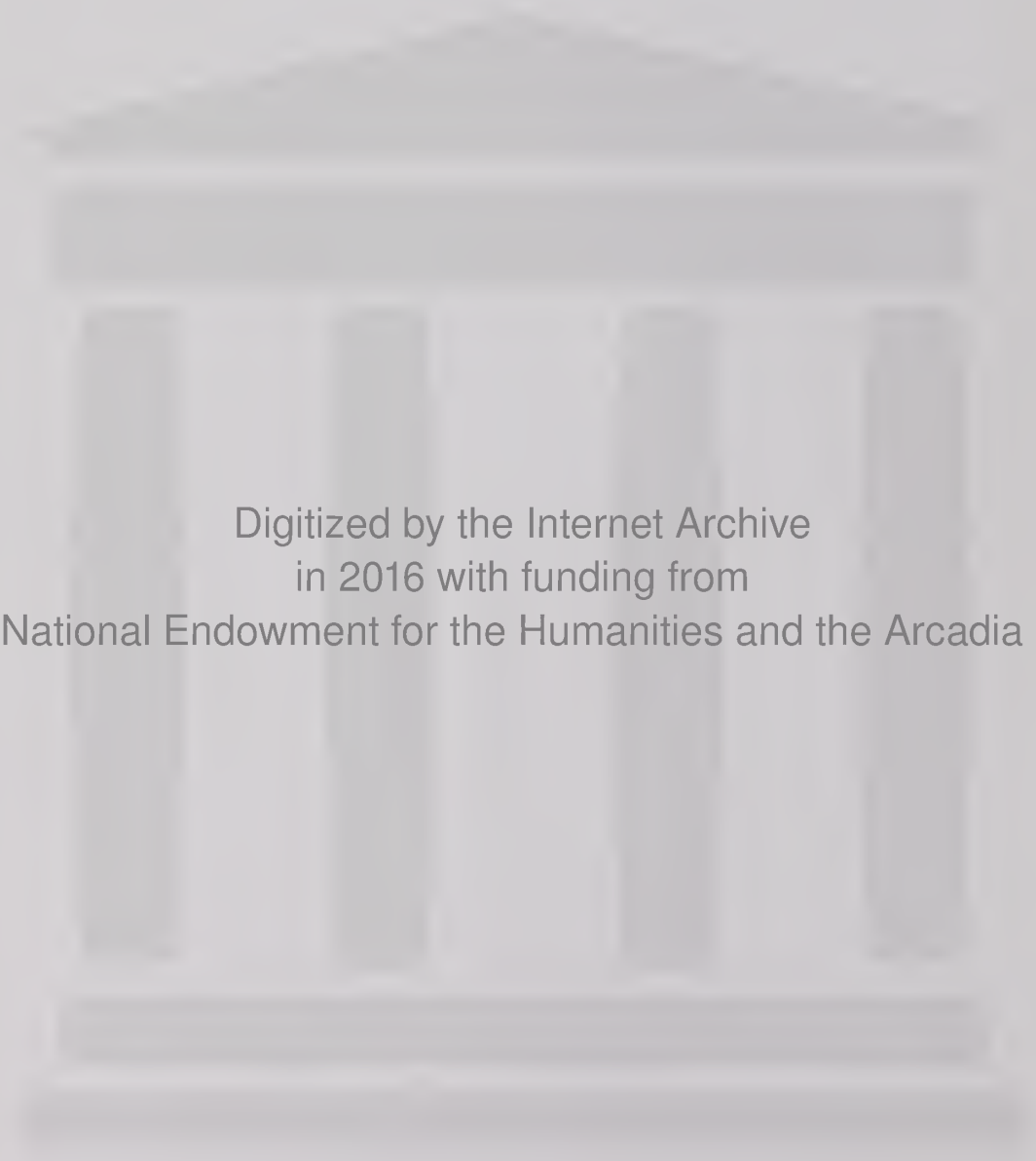


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VOLUME 57, NUMBER 1
JANUARY, 1958

NORTHWEST MEDICINE



This month

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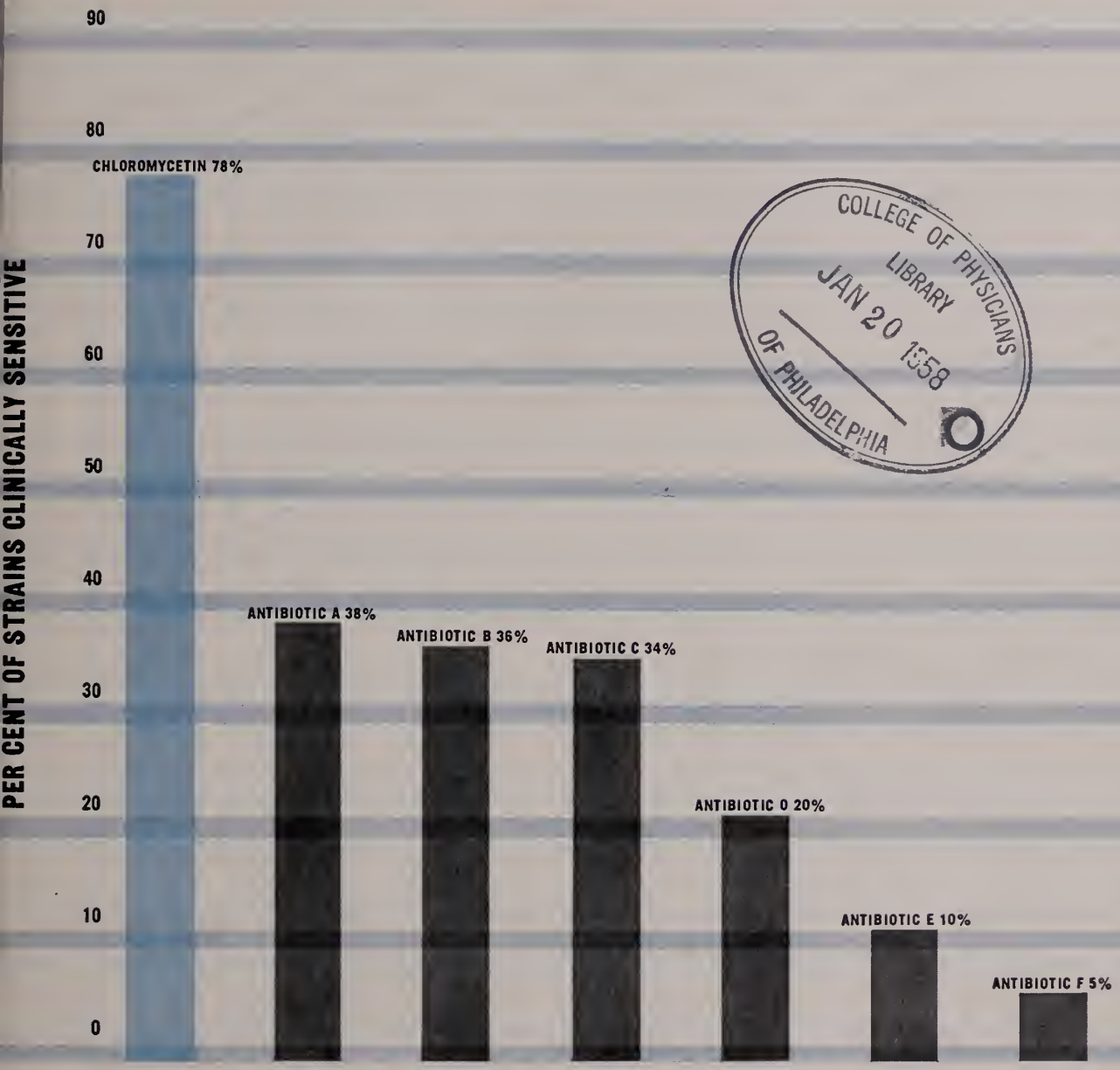
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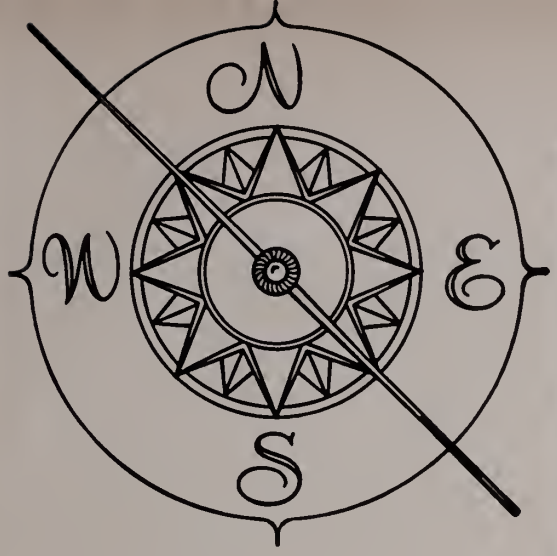
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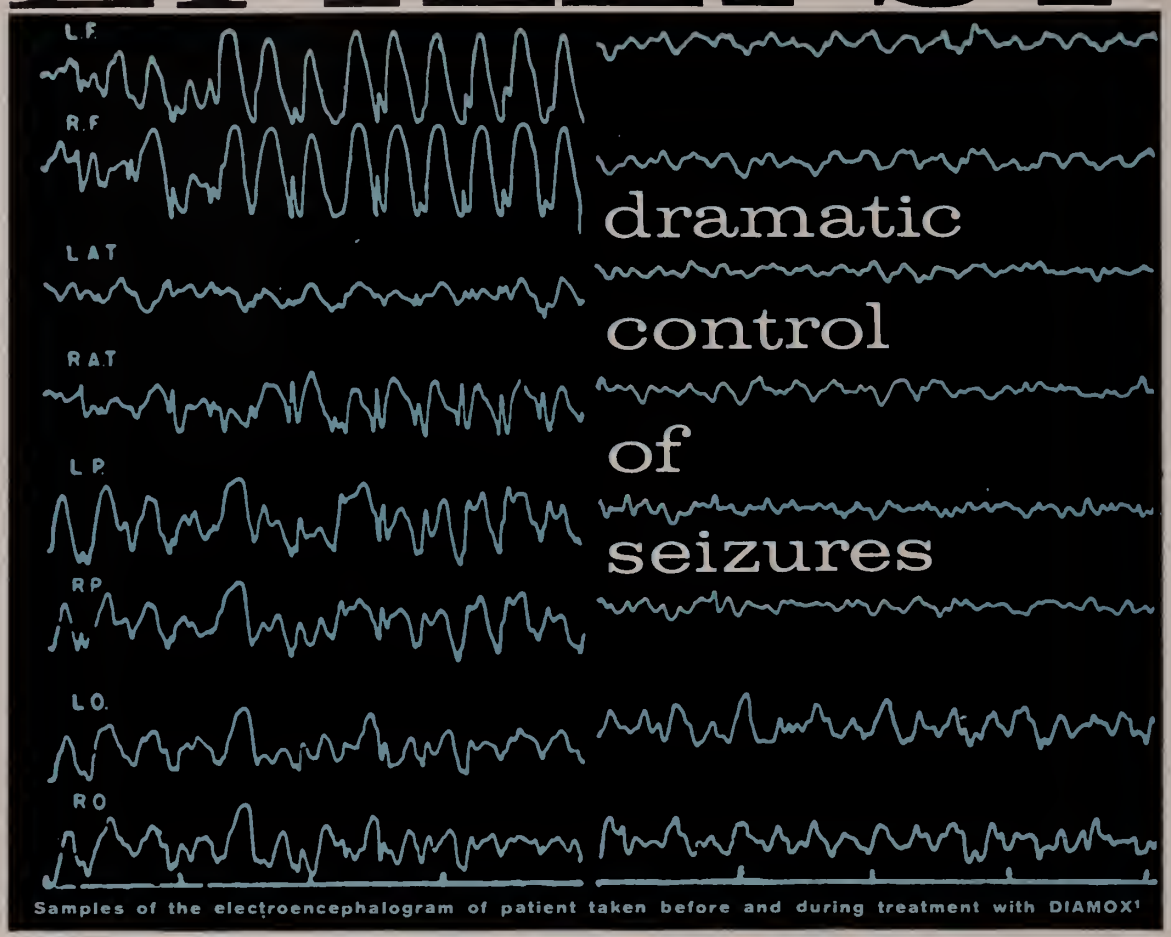
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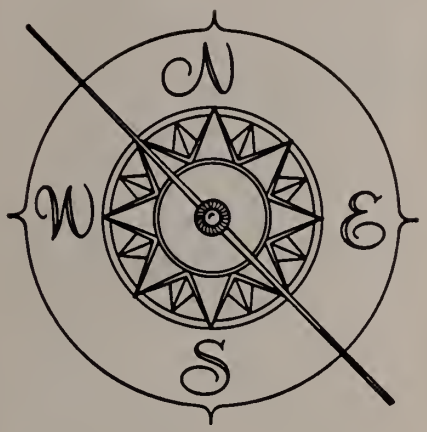
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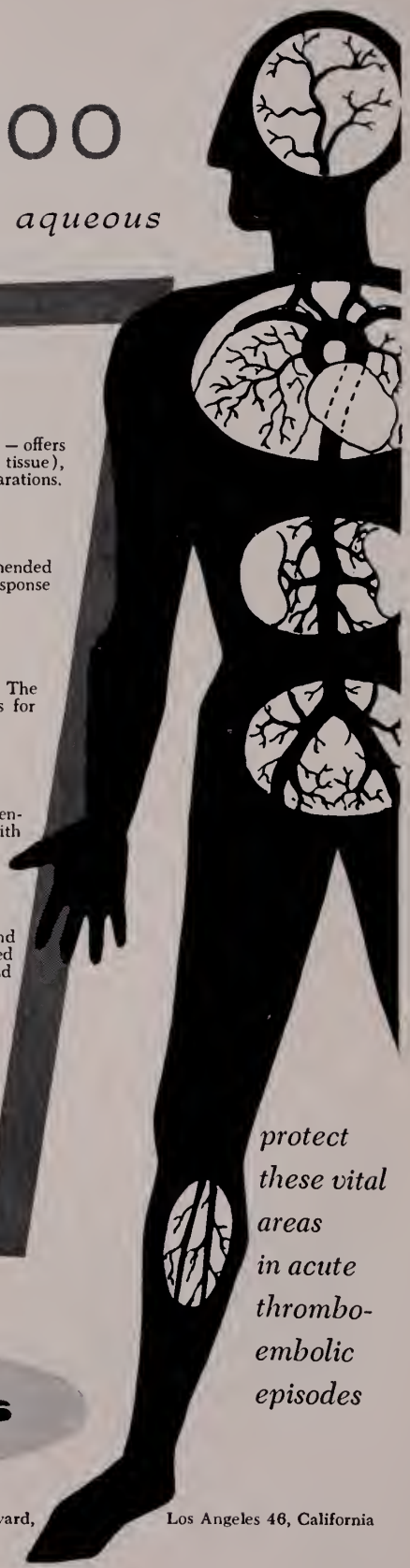
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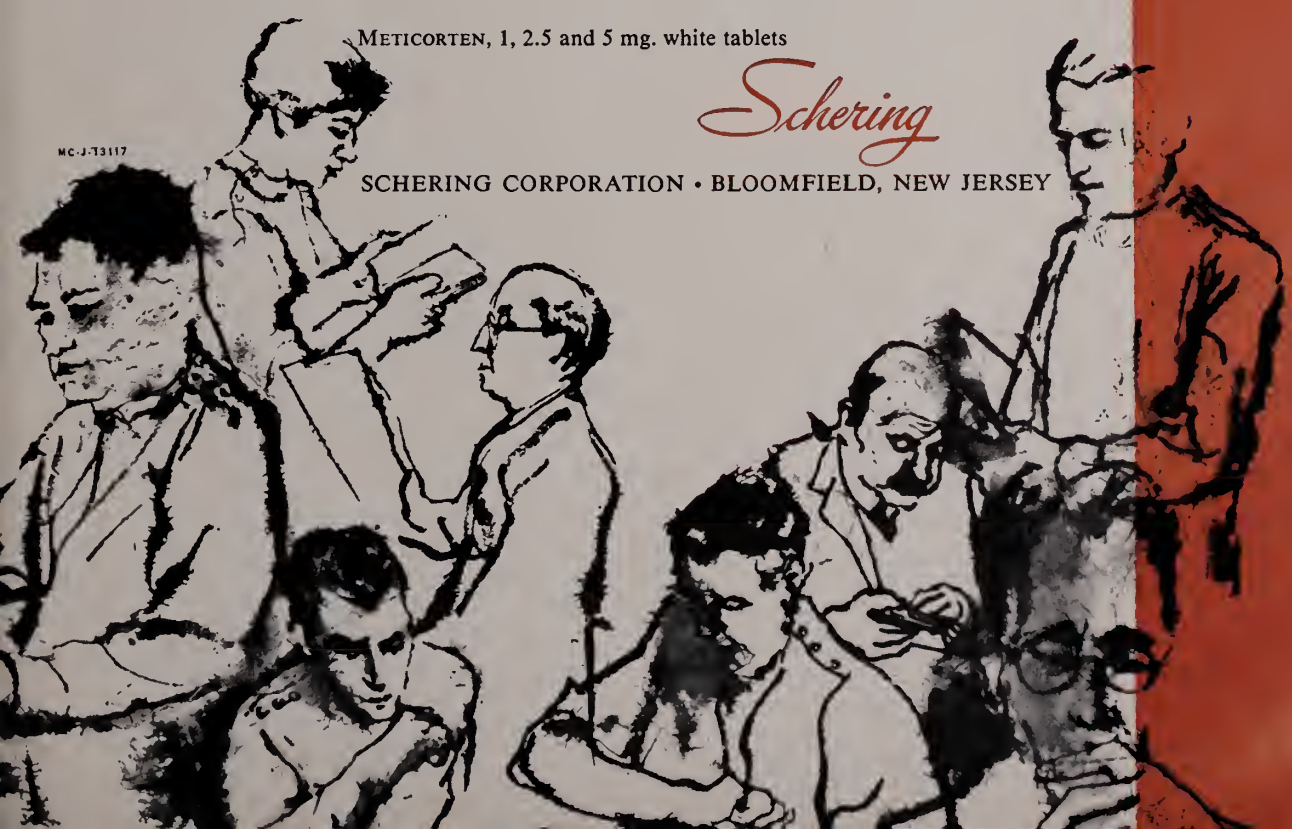
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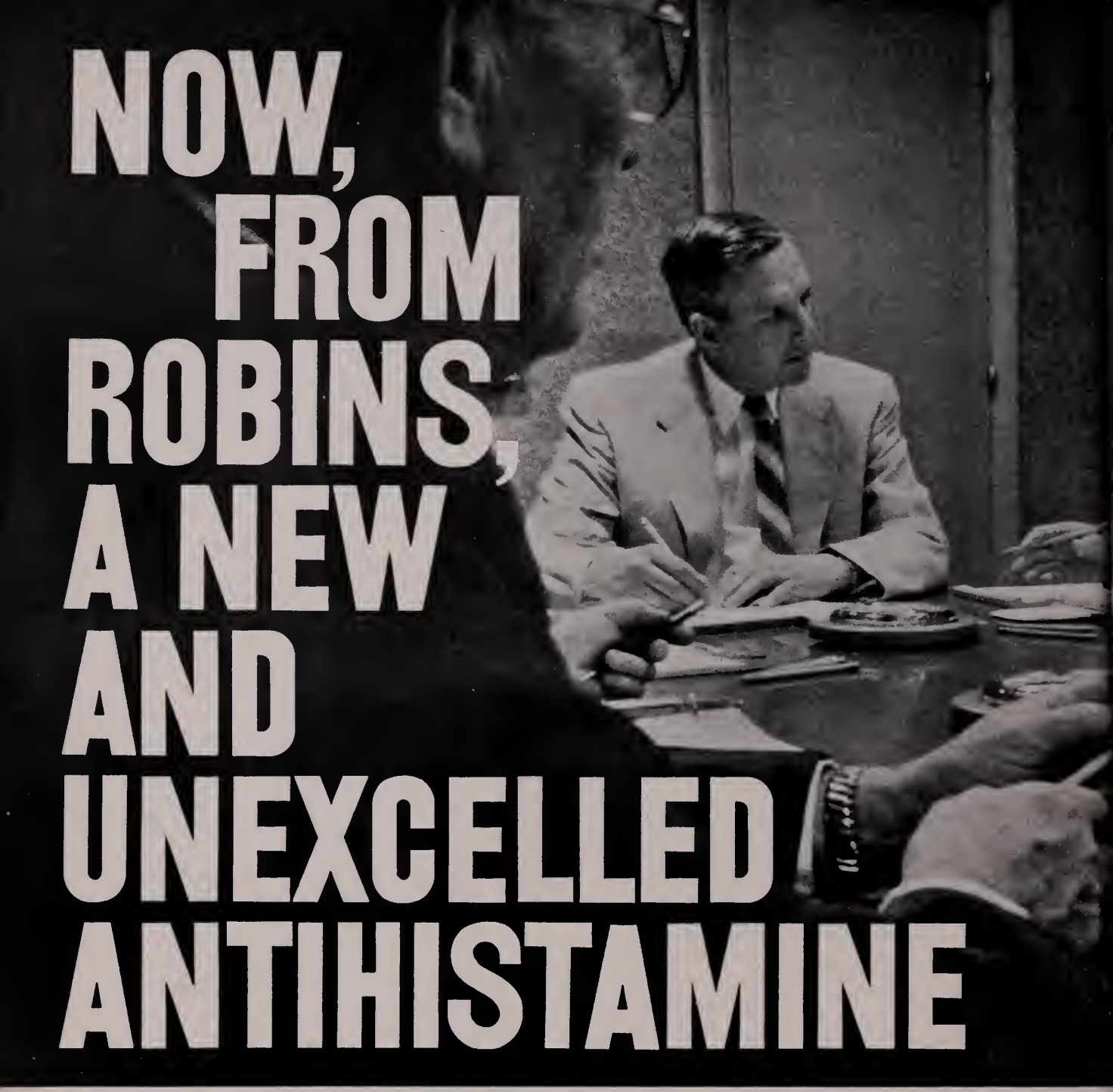
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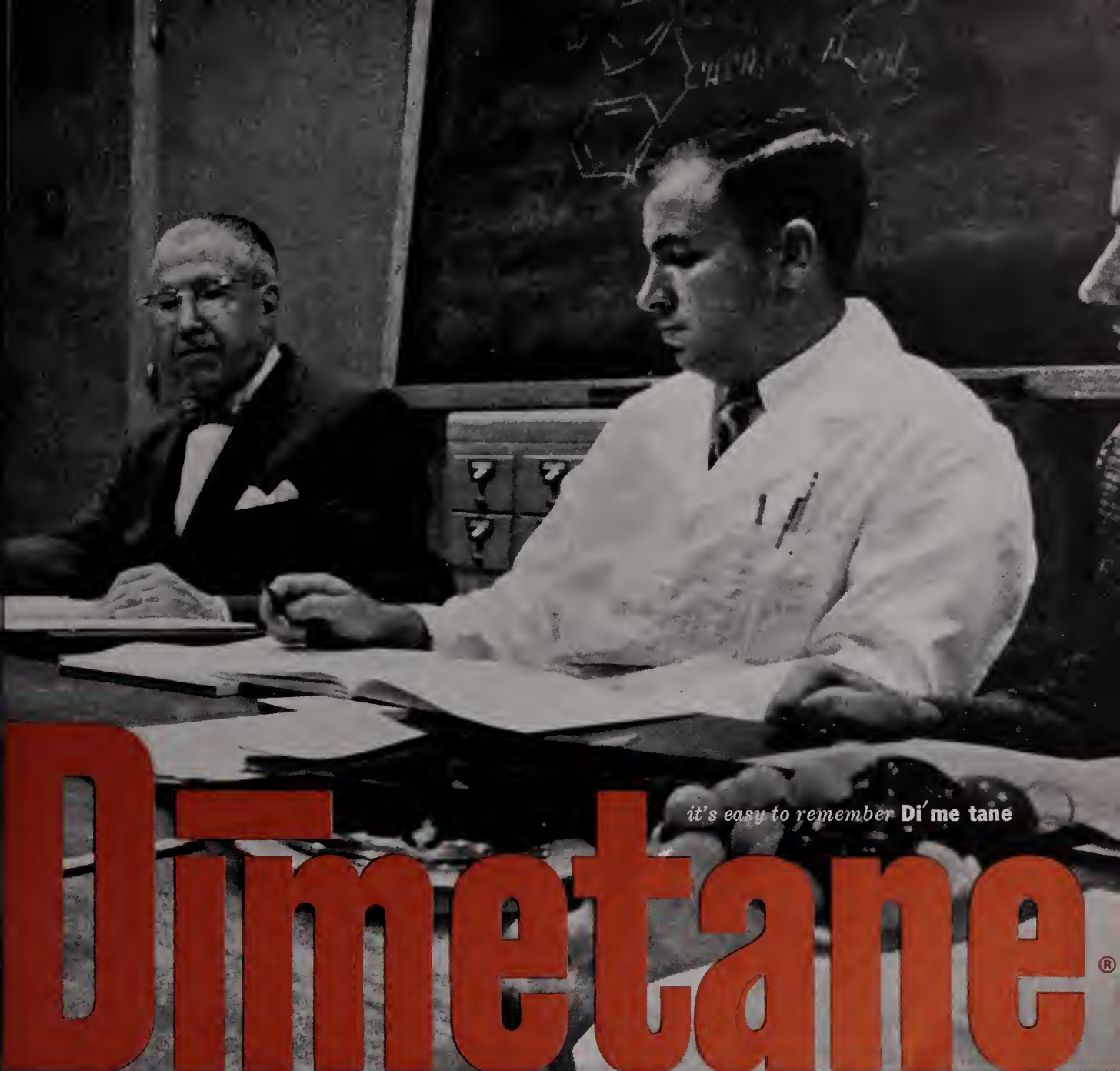
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Allergic dermatitis	2		1	1		Slight Drowsiness (2)
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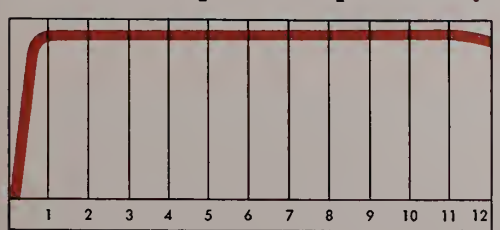
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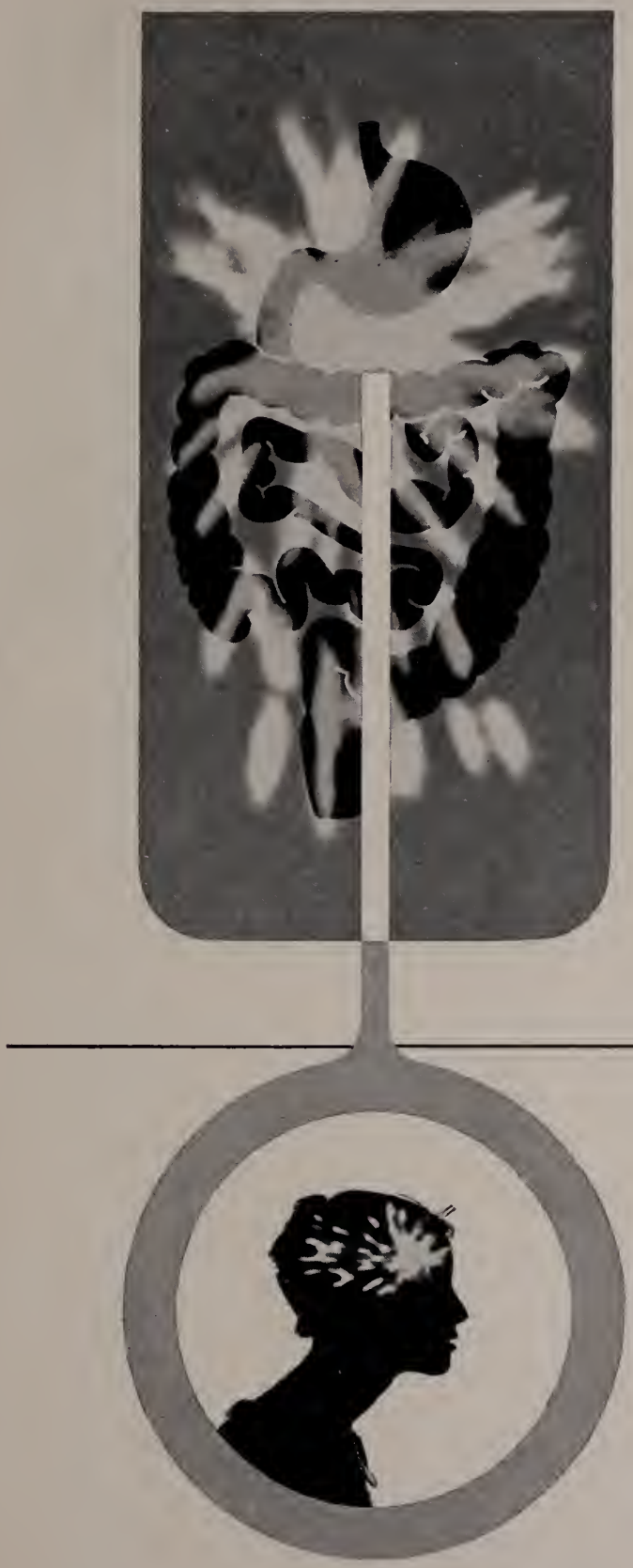
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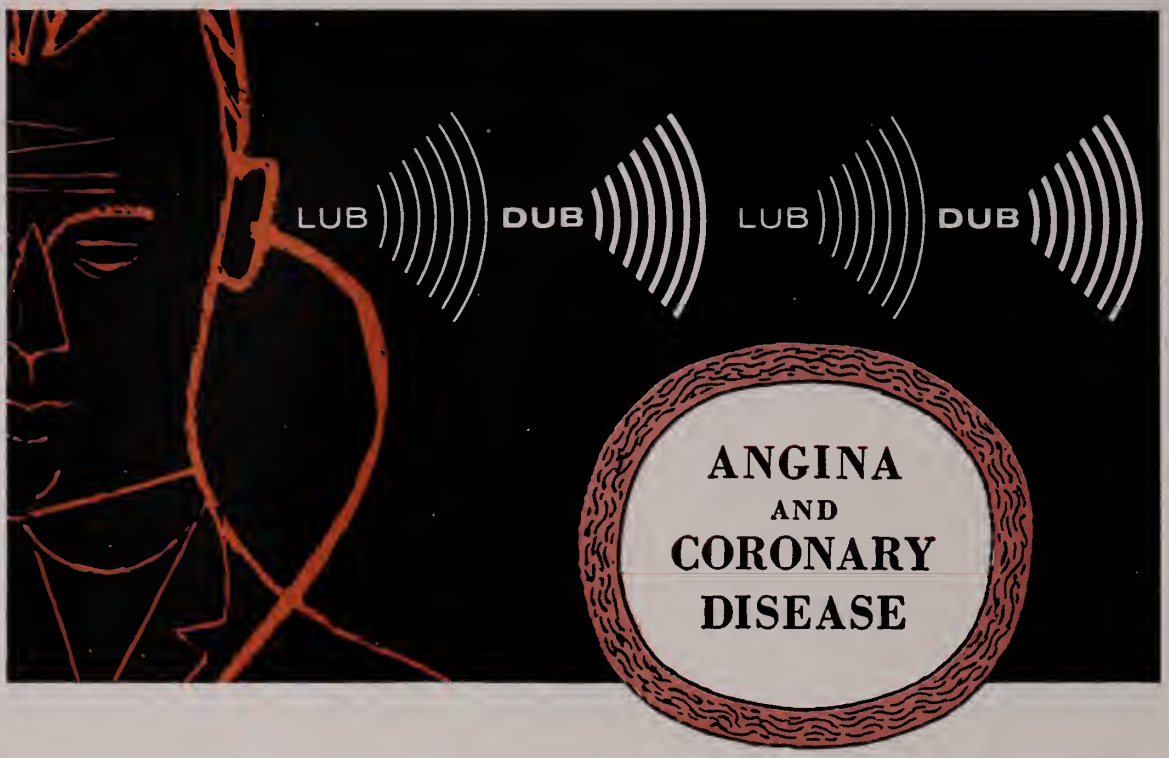
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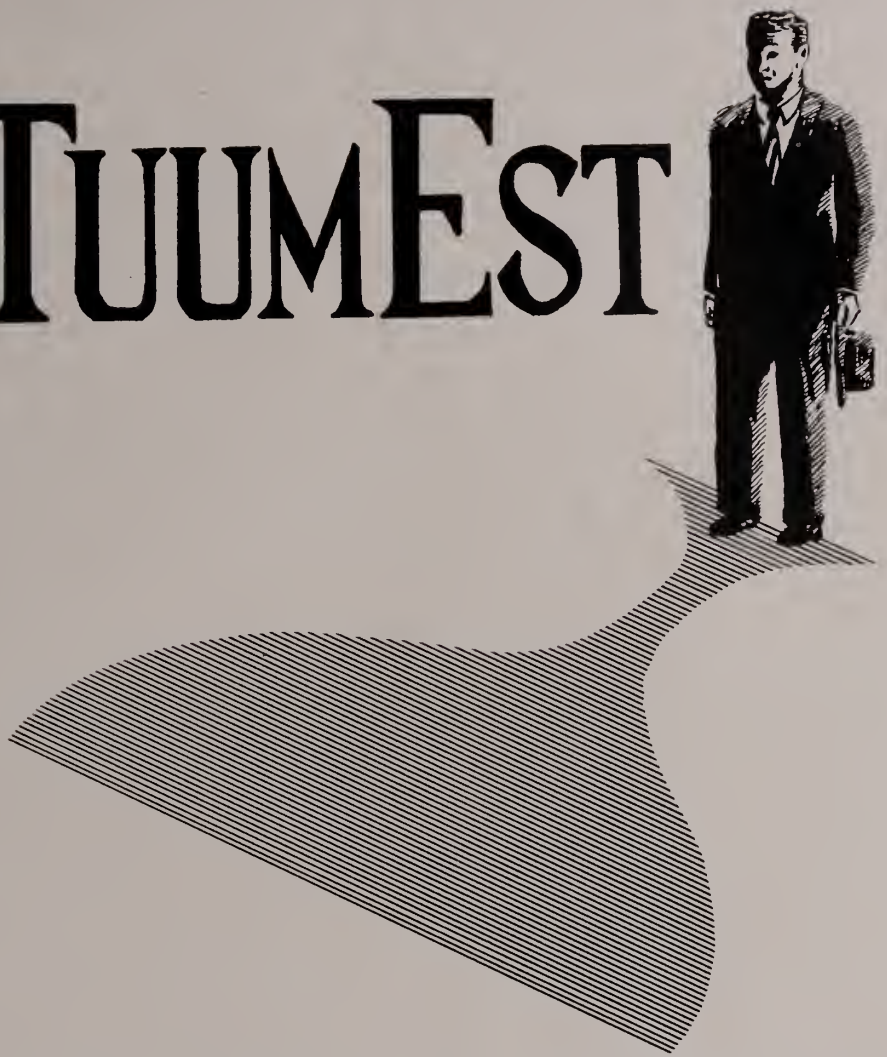
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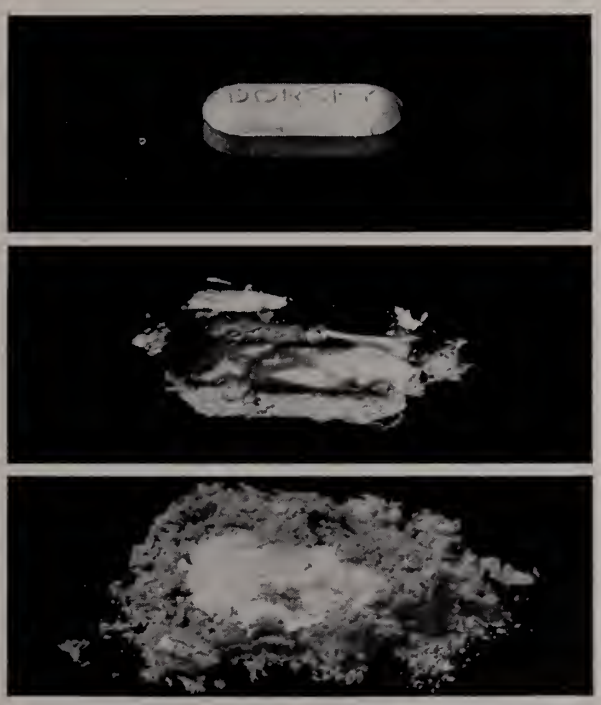


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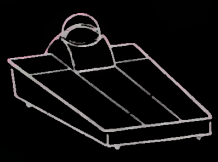
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 1
JANUARY, 1958

EDITORIAL

Trust

Prepayment schemes seem important to the medical profession today and undoubtedly they are important to many other groups composing modern society. Papers presented at the meeting of Western Conference of Prepaid Medical Service Plans at Portland last November, and published elsewhere in this issue, attest to the importance. Thoughtful readers of these messages may learn much about what is happening within prepayment organizations and what we may expect in the future. There may be some misgivings.

One of the most disturbing factors is the evidence that those who engage in the business of selling prepayment plans, and many of those from without the profession who try to discuss them, are thinking about medical care minus the profoundly important principle of trust. Some physicians understand it but some do not. Some physicians try to practice medicine as a science; some use science as a tool in applying their art. Understanding of the principle of trust, or even recognition that such an attitude can play a part in preventing or curing illness, can hardly be expected from one who has never experienced the great satisfaction which comes with its employment in healing. One trained only in the market place might be expected to find satisfaction in neat dollar labels on everything or in columns of figures representing numbers of people enrolled. It may be unfortunate that those trained in commerce, and even those physicians who are skilled in business dealings, seem to be able to communicate their manner of thinking to others. Thus people become punch marks on an IBM card and medical care becomes a commodity. The two are balanced in electronic machines and the business man is happy if the answer shows financial solvency of the scheme.

Hawking medical care as a commodity may not be all bad. There is no doubt that it has brought more people into more medical offices, much as has the socialistic scheme in England, but that is hardly an unmixed blessing. It has its defects, one of which is illuminated by the wails of those in medical commerce about over-utilization. Avowed purpose of the schemes is to provide more medical care for subscribers but when they demand what they have been promised, the holes in the punch cards and the dollars paid out do not always make comfortable reading for plan administrators. But that is not the point.

The most important point, and the one so easily overlooked is that commercialized medicine, while often adequate, can never be superior. The *best* medical care is rendered when there is personal relationship between physician and patient which provides the best possible opportunity for the patient to achieve his desired goal in health. That is the kind of relationship that cannot be punched into a card or tabulated in dollars but it is just as real as an electrocardiogram or a sedimentation rate.

Perhaps a case observation might illustrate the point. Several years ago an elderly gentleman was admitted to an Eastern hospital for nephrectomy. When the resident made rounds the evening of admission, he made mental note of the fact that the patient did not display the concern which might be expected of one confronted with

such serious surgery. The next morning he had a nephrectomy and that evening, when the resident made rounds, the patient was reading the paper, with no evidence that he had undergone a truly major procedure. It took the resident some time to understand that patient. It finally dawned on him that, for the first time, he had seen a patient go through surgery without fear. It had been possible because his surgeon was an old and trusted friend in whom his confidence was absolute. The surgeon had operated on him before. His surgical ordeal consisted of a brief sleep under anesthesia and a little inconvenient pain in the side, nothing more. Those who understand the real nature of the art of medicine will realize that the pinnacle of that art was achieved by the surgeon in the case. He delivered the commodity represented by gentle, expeditious surgery but that was only something he did to the patient's flank. What he delivered to the patient was more significant but, to some, a little more difficult to understand. It was the creation of a peculiarly personal relationship, deeply satisfying to both, which permitted the patient to undergo his surgery without fear.

Mr. Sprague, in his paper, said that there was considerable myth in the confidence of the patient in his physician. The statement reveals that he too understands medical care only as a commodity and that he is entirely unaware of the very profound effect of *complete* confidence of the patient in his physician. Dr. Raider, in his plea for support of the Blue Shield plans, talks of competition, the tendency of an employer to seek cheaper coverage and the dollar inequality of groups. His concern is not the practice of medicine but only the balance between dollars and holes in the punch cards. Dr. Layton comes closer to an understanding of the creed of medicine. He knows that the doctor in the Luke Field painting had a kind of skill for which there is no price, which cannot be sold in neatly labeled packages. He understands the motivation of the dedicated physician and his natural resentment against the encroachment of business economics upon the time which he would prefer to devote to the patients who need him.

Perusal of the papers given at the Portland meeting should give any physician in practice a better understanding of prepayment, what it is, what it plans to be and how the people in prepayment think about the practice of medicine.

The Forand Bill

H. R. 9467, now known as the Forand Bill, was introduced in the first session of the 85th Congress by Representative Forand (D, R. I.). It would amend the Social Security Act to provide medical, surgical and hospital benefits to beneficiaries of the Act. Number of persons who would be eligible for medical and hospital care by the government is estimated at 12 to 13 million.

Cost of hospital care for 60 days in any one year would be paid from the Social Security Trust Fund. Nursing home care also would be provided to combined total of 120 days in any twelve month period. Surgical treatment would be provided with the surgeon being paid from the Old Age and Survivors Trust Fund. The surgeon, however, would be required to hold certificate of the American Board of Surgery or be a member of the American College of Surgeons. Physicians rendering non-surgical service would be paid according to regulations established by the Secretary of Health, Education and Welfare.

Medical benefits under the Forand Bill would be in addition to benefits otherwise provided. Maximum cash benefits, now $108.50 for individuals, would be increased to $151.80. Benefits for families would go from maximum of $200 to $305. Present base for taxation is limited at the first $4,200 earned. The Forand Bill would extend this limit to $6,000. Present rate for employer and employee would be increased 0.5 per cent in 1959. Taxes on earnings of the self employed would be increased 0.75 per cent. By 1975 the tax rate for employed persons would be 9.5 per cent and that for self employed persons 7.125 per cent.

This proposal to extend the social security sys-

tem should not be particularly surprising. Specific items in the Forand Bill may not have been included in the schemes of those who first promoted social security legislation but exactly this type of growth was contemplated before the project was launched. Like most proposals calculated to increase government control over the lives of citizens, it has understandable appeal. It seems to make security a little bit more secure. Many, including some physicians, will consider it a good thing. This reaction was well understood by those who made the original plans and it is being counted on by those in charge of the expansion. It is an important block in the foundation upon which they would erect a more and more powerful central government.

It should not be difficult, however, to see just what is happening in the age-old struggle of individual versus government. History of this conflict is circular and the full three hundred sixty degrees have been traveled many times. We are not yet one hundred eighty degrees from 1776 but we are getting there, step by step. The Forand Bill can be recognized readily as proposal to take a significant stride along the arc.

David Allman, President of the American Medical Association, had something to say about the Forand Bill when he addressed the House of Delegates at Philadelphia last month:

> This *is* Socialized Medicine. This is Oscar Ewing's National Compulsory Health Insurance all over again. A decade later perhaps and for a limited number of people but it is "cut from the same cloth" and, I am sure, emanates from the same minds.
>
> It *is* the beginning of the end of the private practice of medicine.
>
> It *is* the death knell for the young, and growing voluntary health insurance industry.
>
> It *is* a serious threat to the well being and local autonomy of the voluntary hospital at the community level.
>
> It *is* Socialism under the auspices of the federal government.
>
> Gentlemen, I submit that this bill is at least nine parts evil to one part sincerity!
>
> For 35 years I practiced surgery, and never once did I operate without first making a full diagnosis of the case. Furthermore, none of you prescribes therapy without an adequate diagnosis. This is the way good medicine has been practiced.
>
> Now along comes a new concept. A solution to a problem without first ascertaining its true scope. In short, prescribing treatment without a diagnosis about (1) the economic resources of our older population, (2) the present and planned programs of voluntary insurers, (3) indigent care at the state level, (4) the incidence of hospitalization and illness by age groups, and other complex research questions.
>
> This procedure may be an advance in the field of vote-getting, but it would be a complete failure in medical and surgical practice.

American Medical Research Foundation

Raymond M. McKeown of Oregon, James Appel of Pennsylvania and Julian Price of South Carolina, all members of the Board of Trustees of American Medical Association, were appointed last June to make special study leading to establishment of a research foundation. This committee brought in a favorable report together with suggested charter and bylaws. Plans were approved by the Board of Trustees and the American Medical Research Foundation was incorporated under the laws of Illinois, September 5, 1957. Board of Directors of the new organization includes Drs. McKeown, Appel and Price with the addition of Leonard Larson of North Dakota and Hugh H. Hussey, Jr. of the District of Columbia.

The Foundation will promote betterment of public health through research, plan scientific and research activities, collect results and transmit them to the public after evaluation, and will maintain a library.

The Board of Trustees voted contribution of $10,000 to the new Foundation for the year 1957. Funds will be augmented by contributions from individuals, corporations, industry or other foundations. Research not otherwise supportable by AMA, or other organizations or individuals alone, will be made possible by the Foundation.



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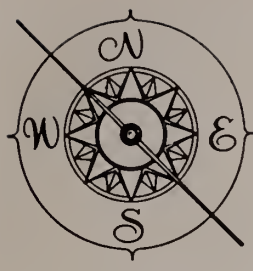
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ORIGINAL ARTICLES

Nipple Secretion in the Non-Lactating Breast

Ausey H. Robnett, M.D.
Milton W. Durham, M.D.
and
Harry P. Harper, M.D.
Spokane, Washington

Hyperlastic discharge in the absence of a mass in the breast obligates the physician to determine its source.

Abnormal discharge from any orifice of the body is a warning signal of altered metabolism or altered structure, which may be potentially lethal. This is as true of the non-puerperal nipple discharge as of intermenstrual or post-menopausal vaginal bleeding.

In the presence of a palpable mass, the nipple discharge is of secondary importance, for biopsy is indicated and establishes diagnosis. In the absence of a palpable mass, however, the character of the nipple discharge is of importance to diagnosis and therapy. The gross nature of the discharge and its source from single or multiple ducts is of importance. Microscopic examination using cellular stains will reveal the presence or absence of erythrocytes and tumor cells.

Approximately 8 per cent of patients with mammary complaints have nipple discharge.[1,2] Grossly, the discharge may be bloody, serous, milky, green, brown, or a combination of these types. From 80 to 90 per cent of discharges from the non-puerperal, non-lactating breast in adults are due to intraductal papilloma, cancer, or fibrocystic change.[1] Unusual causes are trauma, sarcoma, vicarious menstruation, chancre, and inflammatory states.[3]

The discharge may be classified as either stagnation or hyperplastic.

Stagnation discharge is the result of cyclical stimulation or acinar cells with exfoliation of cells into the duct system. Grossly the discharge is white or yellow and is not bloody. With pseudomonas or staphylococcus contamination, the color is green or brown. Often the discharge



Fig. 1. Stagnation discharge. Normal duct epithelium, protein precipitate, and lymphocytes (x44).

Read at the 20th Annual Meeting of the Spokane Surgical Society, Spokane, Washington, April 6, 1957.

appears from multiple ducts and frequently is bilateral. Microscopically (Fig. 1) present are desquamated, degenerated epithelial cells, lymphocytes, mucus, and protein precipitates. The stagnation type of discharge is most characteristic of fibrocystic change. Malignancy is seldom, if ever, the cause of the stagnation type of discharge. The presence of the stagnation type of discharge without palpable mass permits the physician to reassure the patient and recommend periodic examination of the breast.

STAGNATION DISCHARGE

Gross - White, yellow, green, not bloody

Microscopic -
- Degenerated epithelial cells
- Colostrum cells
- Lymphocytes
- Mucus
- Protein precipitates

Hyperplastic discharge, as the term indicates, is the result of cellular hyperplasia. It may occur with intraductal papilloma, intraductal adenoma, and carcinoma. Often localized to a single duct, the hyperplastic discharge is serous or bloody. Microscopically, it is found to contain erythrocytes, epithelium, lymphocytes, and tumor cells. A discharge which is not bloody grossly, however, may contain red blood cells microscopically and must therefore be classified as hyperplastic. Adair[4] reported in a study of 108 patients with a serous or serosanguineous discharge, that the discharge was due to malignancy in 47.2 per cent and to a benign lesion in 52.8 per cent. Similar distribution has been reported by Donnelly[1] and Macdonald.[3] These figures included patients with a mass as well as without a mass. In the absence of a palpable mass the incidence of malignancy associated with a hyperplastic discharge is 9 per cent, or roughly one out of ten.[5]

HYPERPLASTIC DISCHARGE

Gross - Serous to serosanguinous

Microscopic -
- Erythrocytes
- Epithelium
- Tumor Cells
- Lymphocytes

Given, then, hyperplastic discharge in the absence of a mass, the physician is obligated to determine the source of the discharge. Gentle radial compression of the circumareolar breast tissue will result usually in the appearance of the discharge from one of the twenty ducts normally present in the nipple. If the single duct is identified, it may be cannulated with a small lachrymal duct probe, split, and followed to the periphery of the breast, until the source is determined.

If no source is grossly apparent, the duct with adjacent breast tissue should be excised as a biopsy for microscopic examination. If the source of the discharge is carcinoma, radical mastectomy is indicated. If, however, the source of the discharge is an intraductal papilloma, local excision is indicated, although there is dis-

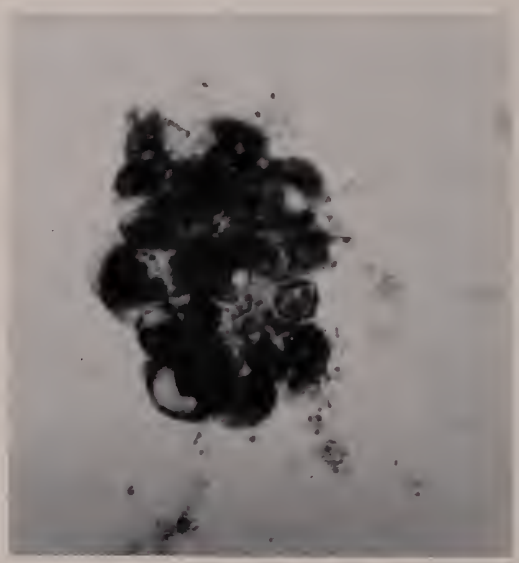


Fig. 2. Hyperplastic discharge with clumps of ductal epithelial cells and erythrocytes (x44).

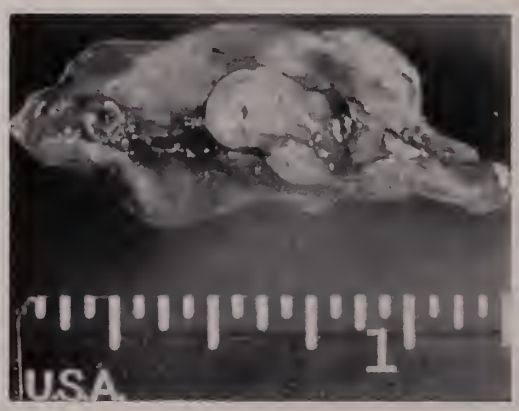


Fig. 3. Intraductal papilloma, benign.

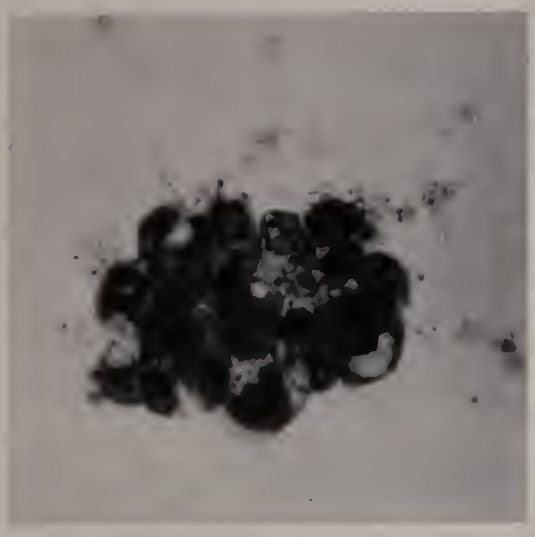


Fig. 4. Bloody discharge—atypical cells suggestive of carcinoma (x44). Biopsy revealed intraductal carcinoma.

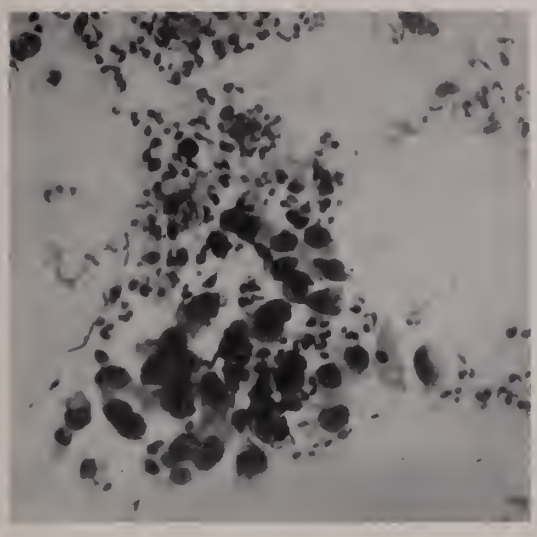


Fig. 5. Ulcerated nipple—atypical cells suggestive of malignancy (x44). Biopsy revealed intraductal carcinoma.

agreement by some who advocate simple mastectomy.[6]

Intraductal papilloma, which is a common source of the serous or bloody hyperplastic discharge, is a benign lesion (Figs. 2, 3) and must be differentiated from intraductal papillomatosis, or diffuse papillary proliferation which should lead one to suspect papillary carcinoma. Estes[6] concludes that the intraductal papilloma is multiple in 15 to 30 per cent and simple mastectomy should be done. Haagensen,[7] however, believes that the true intraductal papilloma is rarely multiple and in 76 patients whom he treated by local excision, 5 developed other intraductal papilloma, but none has developed carcinoma over a five and ten year period.

Diffuse papillomatosis necessitates careful evaluation with multiple sections to exclude multicentric microscopic foci of papillary carcinoma. The decision to perform mastectomy should await study of permanent sections and consultation with the pathologist. Study of nipple secretion may disclose the presence of atypical cells compatible with carcinoma indicating the presence of intraductal carcinoma (Fig. 4).

Paget's disease is also a source of hyperplastic nipple discharge and in smears can be recognized tumor cells (Fig. 5) not seen in eczema of the nipple. Simple punch biopsy will establish the diagnosis of intraductal carcinoma.

Summary

1. Nipple discharge in the non-lactating breast is a sign of breast disease.

2. In the absence of a mass, gross and microscopic study of the discharge may reveal the presence of tumor cells. Source and etiology of the discharge must be found.

3. Stagnation type of discharge is found in fibrocystic changes in the breast.

4. Hyperplastic discharge, serous or bloody, is commonly caused by intraductal papilloma or carcinoma in approximately equal percentage.

5. Intraductal papilloma is a benign lesion and may be treated by local excision. Papillomatosis, however, should be regarded as a pre-malignant lesion and microscopic foci of papillary carcinoma should be sought.

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Intravascular Gas in Fetal Death

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Purpose of this paper is to review briefly the Roentgen signs of fetal death, with emphasis on the demonstration of gas within the fetal circulation as pathognomonic of death.

The usual signs suggestive of fetal death are as follows.

1. Overriding of the skull bones with cephalic asymmetry.[1] Fahmy[2] has recorded these changes in the living fetus.
2. Marked angulation of the fetal spine (Szellö).[3] This is usually characterized by hyperextension.
3. Lack of correlation between fetal bone size and duration of pregnancy.
4. Stationary fetal position in serial examation.
5. Haziness of contours or absence of bony structures in serial examinations.

All of the above signs however have been

The film shown above has been retouched to emphasize shape and location of radiolucent areas. They were well recorded on the roentgenogram but contrast was too low for proper reproduction on the press. Ed.

demonstrated in live fetuses, and it is estimated that they do not become evident until one to two weeks following fetal death.

Gas in the fetal circulatory system was first demonstrated by Roberts[4] in 1944, who diagnosed one case before delivery and demonstrated the gas in one stillborn. Sporadic reports have filtered through the literature since that time, with approximately 48 cases now having been recorded. It should be emphasized however that this is a common phenomenon, and is frequently demonstrated by good film technique in fetal death. Crick and Sims[5] report the sign in 12 of 23 cases where x-ray studies were done prior to delivery of stillborns, and Holm[6] showed the gas in 13 of 18 cases, including post-partum studies.

Examination of the fetuses where delivery occurred within a few hours following the roentgenograms showed that 80 per cent had been dead less than 5 days and only 20 per cent for longer periods. This was determined roughly by the degree of maceration (grading of maceration after Martius).

The importance and frequency of this sign may not have been realized earlier because few requests for this examination are made. Obstetricians have found that by the time roentgenologic signs are definite, there is little doubt left clinically.

Correct film technique is essential to demonstrate the gas. A lateral film utilizing a wedge filter is the most important single view. A horizontal beam to demonstrate gas-fluid levels may be helpful.

In all reported instances the gas was situated in the heart, aorta, or some of the major arteries. In several cases there also was gas in the inferior vena cava and umbilical vessels.

Analysis of the gas has been reported by different investigators as nitrogen, oxygen and carbon dioxide. It is not definitely known how the gas is formed. Davidson[7] considered the gas due to decomposition of some blood element. Samuel and Gunn[8] believed that the gas developes in the living fetus, and that fetal death is secondary to intra-cardiac gas embolism. Holm stated that chemically combined oxygen and carbon dioxide are liberated from decomposing hemoglobin and gave cogent reasons for his belief. This seems the most probable explanation, for the time being.

CASE REPORT

A 28 year old white female, gravida 4, para 2, was referred for fetal roentgenograms to evaluate possible fetal death. The patient stated that she had felt fetal movements until 24 hours previously. Fetal heart tones had not been heard definitely for the preceding six days. The patient had two living children, one 9 years old and the other 6 years old. She had a premature delivery January 1955 of a stillborn infant. Her blood type was 0, Rh negative. The anti-Rh titre had been rising for the last two months of this pregnancy.

Roentgenograms revealed a single fetus whose size conformed to approximately eight months gestation. The abdominal arteries and umbilical vessels were well outlined by air. The fetal position was normal and there was no overlap of the skull bones.

The patient spontaneously delivered a stillborn fetus 24 hours later, the fetus showing moderate hydrops and maceration. Death was estimated to have occurred four to five days previously.

Summary

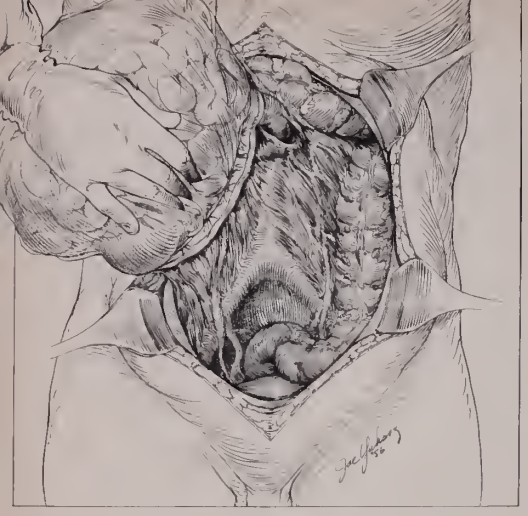
1. Gas in the fetal circulatory system is pathognomonic of fetal death.

2. A review of the literature suggests that this sign occurs early and is a relatively common finding when sought.

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Exposure in Abdominal Surgery

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One of the chief problems of exposure in the abdomen, especially in obese individuals, is isolation of small bowel from the operative field. The problem becomes greater when one needs free exposure over considerable distance. It is always difficult to successfully pack small bowel out of the operative field and keep it isolated. The mass of small intestine, plus the heavy packing sponges, fill such a large part of the abdominal cavity that often there is little room left for exposure of the area desired.

Isolation of the bowel can be achieved by use of a bag made of plastic material known as vinyl film. It is tough, durable, and may be autoclaved at the same temperature as rubber gloves without losing its softness, color, transparency or pliability, or deteriorating in any way. These bags are made by folding a sheet of vinyl film to the desired size and sewing the edges on a machine after applying a small strip of binding tape for strengthening. The bag which has been employed measures 18 inches in length and 16 inches in width. The large opening of the mouth of the bag can be narrowed by loose ties which are sewn into place on one edge of the opening.

The vinyl film material may be purchased directly from the manufacturers or by its brand name from local dime stores.*

It is sometimes necessary to free the lateral attachments of the cecum in order to include all the small intestine from the terminal ileum to the ligament of Treitz. The mouth of the bag can be narrowed with the tie, but without constriction, and the whole mass of bowel thrown up over the abdominal wall. A sponge moistened in warm saline is first inserted in the bag, previously autoclaved, and the bowel placed on this warm saline pack. With the bowel completely mobilized onto the abdominal wall, the posterior abdomen is exposed widely for any surgical procedure which may be necessary.

The maneuver is especially valuable, for instance, in approaches to the abdominal aorta and iliac vessels for aortic arterial grafting, or thrombo-endarterectomy, or for bilateral transabdominal sympathectomy, which one may want to employ as an adjunct to other surgery. The exposure is excellent from the level of the ligament of Treitz to the pelvis. The method is applicable to surgery of the left colon, where the necessity of packing away loops of small bowel may be annoying, especially in obese individuals.

Use of the plastic bag also minimizes handling and trauma to the bowel. It decreases the cooling effect of prolonged exposure which tends to be more shocking to the patient and is conducive to development of paralytic ileus.

One must be careful, when the bowel has been laid up on the abdominal wall, that the assistants do not inadvertently lean against, or put pressure upon the extruded bowel, or traumatize it by forceful retraction against the mesentery.

Use of these bags is of great value in certain cases in which exposure by other means is difficult. They protect the bowel, provide easy posterior abdominal exposure with the small bowel isolated, are inexpensive, are easy to prepare and they may be autoclaved without being damaged.

1033 Gayley Avenue (24).

*Vinyl film may be purchased from: (1) Elm Coated Fabrics Co., 261 Fifth Ave., New York 16, N. Y.; (2) Custom Printers, Div. of General Tire & Rubber Co., Jeannette, Pa.; and (3) F. W. Woolworth Co. Stores.

Carcinoma of Fallopian Tube

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Orthmann is credited with first describing carcinoma of the fallopian tube in 1888. Since that time approximately six hundred cases have been reported.[1] Primary malignancy of the fallopian tube is the rarest of the pelvic neoplasms and also the most malignant. Prognosis is extremely poor, less than 5 per cent of the cases being reported as a five year cure. Patient age varies from 18 to 80 with the greatest incidence falling in the forty-fifth to the sixty-fifth year. Its incidence has been reported variously as being between 0.1 and 0.5 per cent of pelvic neoplasm.

Pre-operative diagnosis is difficult and seldom made. The most frequently encountered symptoms are: 1. pelvic pain, 2. intermittent vaginal bleeding or gush of fluid and 3. palpable adnexal mass. Pain as a symptom occurs much earlier than in any other pelvic neoplasm. Pelvic pain may vary in intensity and extent. At times it will be lancinating in type, acute and referred to the lumbar areas. It is usually located on the side of the involvement. Sudden distension of the tube by fluid is thought to be the cause for this lancinating type of pain. At other times it may be a continuing dull discomfort, generalized and constant. Vaginal bleeding is usually spotty and at infrequent intervals. Sudden gushes of watery or serosanguineous fluid occurring intermittently may be the most suggestive signs. Martzloff has postulated that postmenopausal bleeding associated with negative cervical and endometrial findings is suggestive of tubal carcinoma.[2] Vaginal smear is being recognized as an additional diagnostic aid.

Approximately one-third of these neoplasms are bilateral. The most frequent site of tumor origin is in the distal two-thirds of the tube. Early closing of the fimbria accounts for the discharge through the vagina. Metastasis is by lymph or vascular channels, continuity or transperitoneal migration. Microscopically, the neoplasm is adrenocarcinomatous in type which is further subdivided into papillary, adenomatous and medullary types.

Total hysterectomy with bilateral salpingo-oophorectomy is accepted treatment. Use of postoperative Roentgen therapy is of questionable value.

Read at the semi-annual meeting of the Boise Valley Chapter, American College of Surgeons, May 25, 1957.

CASE REPORT

A housewife, age 61, was first examined on April 18, 1940. Her complaint was vaginal spotting, soreness through the lower abdomen, constipation and some sciatic and back pain. She had been married at age 19, had had two normal pregnancies and deliveries. Her menstrual periods were always heavy with slight pain. Because of excessive flow, at the age of 49 she had had intrauterine radium treatments. The radium reaction was immediate. All flow stopped within a month. Menopausal symptoms were very mild. After the radium treatment she had been entirely well until five months prior to examination, at which time she noted spotting on voiding. Three weeks later she had a second show which lasted for two or three days. There was show of one to two days during each of the three months immediately preceding examination but only enough to be noticed on voiding or to produce very slight stain on her clothing. There was no vaginal discharge or odor. Soreness in the lower abdomen was noted in conjunction with the spotting and was accentuated by being on her feet. She stated that constipation had been a constant complaint.

Family history contained no reference to malignancy and her past health, otherwise, had been without note.

Physical examination revealed an elderly white female, 62 inches in height, 135¾ pounds in weight. Blood pressure was 116/70, pulse 80, temperature 98.2. Abdomen did not reveal any masses or enlargements although there was indistinct sensitivity in both lower quadrants. Pelvic examination revealed normal external genitalia, moderate atrophy of the vagina with shortening, and a uterus that was two-thirds normal size, smooth and regular. The cervical os was open and showed no abnormal discharge or color. There was moderate tenderness behind the cervix and in both fornices. The tubes and ovaries were not palpable. There were small asymptomatic hemorrhoids. Extremities were normal with the exception of slight varicosities of both lower legs. Laboratory examination showed moderate hyperchromic anemia.

Since no organic lesion was demonstrated on examination, curettage was advised. It was done April 22, 1940. Pathologic report described fibrin, blood and a few atrophic endometrial cells. At the time of the curettage there were several small fissures in the mucocutaneous line in the posterior opening of the vagina. Manipulation during procedure had produced slight stain in this area. With this demonstrated possible source of bleeding and negative findings, the patient was dismissed from the hospital, given treatment to reduce vaginal irritation and directed to report back should the spotting again present itself.

Patient remained free of spotting until April, 1941. She reported to the office the day she noticed the spotting. On pelvic examination blood was found in the cervical os. Pelvic examination revealed no change in the uterus, and the tubes and ovaries were not palpable. There was no increase in tenderness during the pelvic examination. The patient was again advised that the mucosa of the uterus should be examined and if not within normal limits, the abdomen should be opened so that the pelvic organs could be thoroughly inspected.

Curettage, followed by laparotomy, was done April 16, 1941.

The uterine scrapings again were not suggestive of malignancy. It was with some hesitation that the patient's abdomen was opened. Examination revealed the uterus to be atrophic, smooth and moderately firm. The ovaries appeared to be completely atrophic. The distal end of the right tube, however, contained a firm, whitish, nodular mass 3 cm. in length and 1.5 cm. in diameter, closing the fimbriated end of the tube. Both tubes were lying free in the abdomen. No lymph nodes were palpable but there were several white, pin head sized elevated nodules on the pelvic peritoneal surface and the posterior of the uterus. Total hystero-salpingo-oopherectomy was performed with wide ligation of the uterine vessels and removal of a large portion of the vaginal vault immediately surrounding the cervix. The whitish nodules on the peritonium were excised widely.

Pathologic report was as follows: "The curettings consist of mucus and blood. Uterus 5x7x2 cm. with tubes 6 cm. in length and ovaries 2x1x1 cm. attached. The end of one tube is enlarged 3x2x2 cm. The fimbriated end is closed. The tube cuts readily. The cut surface is pinkish white. The ovaries are fibrous. The uterus cuts with increased resistance. There is a stricture at the junction of the cervix and body of the uterus with papillary growths along this stricture. The vessels stand out from the cut surface. Sections through the tube show the lumen filled with epithelial cells supported on a delicate connective tissue stroma. These cells have invaded the musculature, and their nuclei show change in size and polychromatophilia and many mitotic figures. There is some hemorrhage throughout sections through the cervix which show areas of dense connective tissue throughout the musculature. There are outgrowths of connective tissue.

"Diagnosis: Papillary adeno-carcinoma of tube. Stricture and fibrosis of cervix."

Postoperative convalescence was without complications and patient received deep x-ray therapy to tolerance before leaving hospital.

The patient left the hospital on the thirty-first day. She remained well following this procedure until June 7, 1942 at which time she complained of some bladder distress and a return of tenderness in the lower abdomen. Examination revealed some increased fullness of the right pelvic area. Examination July 7, 1942 revealed quite a marked increase in fullness in this area and suspicion of a recurrence of her malignancy was confirmed. Patient expired October 12, 1942, from general abdominal metastasis of the malignant process.

Summary

In summary, may I point out that the symptomatology and usual clinical findings of tubal carcinoma are much more obscure and misleading than in the more frequently occurring pelvic malignancies. Pain and pelvic tenderness are the rule in early findings, suggesting inflammatory disease. Spotting is illusive and seldom can be demonstrated on examination. Coupled with a negative pathologic report of curettings, this can give a false sense of security. Recently, vaginal smear has suggested malignancy in these confusing cases. Such a report has led to early operation. Only through thorough understanding can these cases come to early diagnosis and treatment, and only through early treatment can the cure rate be improved.

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Aspects of Salt Fluoridation

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Salt fluoridation as a method of controlling dental decay has been suggested for rural areas where water fluoridation is not feasible,[1] and might be put forward in communities where water fluoridation is not practicable[2,3] or accepted by city or borough councils.

There are a number of circumstances suggesting the usefulness of salt fluoridation. In the first place, fluoridated salt can reach the consumer in rural areas where, for instance, some 50 per cent of Sweden's population is found.[4] Further, this type of salt would give the population a supplement of fluorine to the diet in the same automatic way as fluoridated water would. At the same time the fluoride intake would not be compulsory; any individuals—such as members of families without children, elderly and diseased persons—wishing to use non-fluoridated table or household salt could do so. This form of mass prophylaxis allows a margin for individual desires and exemption. In Sweden, von Euler, adviser to the Royal Medical Board, has recently stressed this important point.[5] Salt as a fluoride vehicle would give a safer guarantee against fluorine overdosing than water. State and community would not be burdened with costs of any importance for a fluorine prophylaxis of this kind. The cost of fluoride added to salt would be negligible as compared with the cost of fluoride added to water. Sodium fluoride addition to the Stockholm water would cost close on 300,000 Swedish crowns per annum,[6] operation costs not included—quite an appreciable item in the community budget.

Production of a well-balanced fluoridated salt is fairly simple. In contrast to the many local plants needed for water-fluoridation, salt for household use in 1 kg. packets containing 100 mg. fluorine per kilogram of salt can be produced with great accuracy for a whole country like Sweden at one single or, at most, a couple of factories. Continuous routine analysis and technical control are thereby reduced to a minimum. The character and content of the salt can be clearly specified on the salt packet (Fig. 1).



Fig. 1. Type and text of salt packet in use in Aargau, Switzerland.

That fluoridated salt can be successfully distributed in territories in which some communities already have a concentration of natural fluorine above 0.6 ppm in the drinking water, is shown in practice in the Swiss cantons Aargau, Zürich and Schaffhausen, where such a salt, containing 90 mg. fluorine per kilogram as sodium fluoride, is marketed at this moment, following decisions by local governments in 1955 and 1956.[3] Behind this achievement is the initiative of Hans-Jakob Wespi in Aurau. According to Wespi, this salt, containing sodium fluoride as well as potassium iodide, is distributed only to those communities in which the fluorine level in the drinking water is below 0.5 ppm.

Read at the 4th Meeting of the European Organization for Research on Fluorine and Dental Caries Prevention at Malmö, Sweden, June 1957.

It has been held against salt fluoridation that the consumption of such salt is low during the first year or years of life, that is, during an important phase in the tooth mineralization period. One conclusion, it seems to me, that might be drawn from this is that mottling of the enamel, even in its mildest forms, is less apt to occur with fluoridated salt than following the use of fluoridated water. On the other hand, it is not self-evident that a low consumption of fluoridated salt during the first year or years of life implies a diminishing cariostatic effect. The fluorine pick-up by the enamel surface of the erupted tooth, especially in the primary decalcified lesions,[7,8] may be an important cariostatic principle entering with the use of fluoridated salt. At the same time it is obvious that when a pregnant woman consumes fluoridated salt, a systemic activity of the fluoride supplement may be reckoned with. This is in agreement with the observation of Wespi,[3] that an accumulation of fluorine in deciduous teeth did actually take place following intake of fluoridated salt by the mother during pregnancy, and by the child itself during the first years of life.

Furthermore, some experimental data suggest that exposure to supplementary fluorine during early infancy is not a *sine qua non* for caries reduction. Held and Piguet[9] observed a considerable cariostatic effect of fluoride tablets (containing 0.5 to 1.0 mg. F) ingested from the age of 5 to 6 years onwards. Similar observations have been made in Japan (Minoguchi),[10] where 33 to 48 per cent caries reduction was seen in 6 to 8 year old school children following admixture of sodium fluoride to the food served in the schools.

It would, however, I think, be unrealistic to believe that a fairly constant, daily dose of fluoride is necessary for caries reduction. Significant caries reduction has actually been observed following intermittent fluorine intake in children (Bruce and Gunter).[11]

One interesting question is the choice of fluoride compound suitable for salt fluoridation. Fluorides other than the simple alkali fluorides should be taken into consideration here. I first became interested in the possibility of adding certain complex fluorides to common salt in 1950.[12] From the fluorides studied in this connection, one emerged as especially deserving of attention: sodium monofluorophosphate (Na_2PO_3F). In the rat and hamster, this fluoride gives nearly maximum reduction in dental decay at a level of 40 to 50 ppm F (Shourie, Hein, Hodge;[13] Zipkin, McClure[14]) and increases the fluorine content of the enamel in the same way as NaF (see table 1).

Table 1. Caries inhibition and fluorine deposition in enamel after ingestion of NaF and Na_2PO_3F in the rat and hamster.

CARIES INHIBITION IN THE HAMSTER

(Shourie, Hein, Hodge, 1950)

	Control diet		Exp. diet with 40 ppm F as NaF		Exp. diet with 40 ppm F as Na_2FPO_3	
	female	male	female	male	female	male
Av. total area of teeth affected	11.2	26.0	2.9	1.2	2.9	0.9

CARIES INHIBITION IN THE RAT

(Zipkin, Mc Clure 1951)

	Control diet	Exp. diet with 50 ppm F as NaF	Exp. diet with 50 ppm F as Na_2FPO_3
Caries score per carious rat	12.0	7.3 (39 % reduction)	6.6 (45.2 % reduction)

FLUORINE DEPOSITION IN RAT ENAMEL

(following 91 days on cariogenic diet, with 50 ppm F in experim.-groups)
(Zipkin, Mc Clure 1951) % fluorine, ash basis

	Control	NaF (oral)	Na_2FPO_3 (oral)
Molar enamel	0.005	0.053	0.059
Insisor enamel	0.005	0.044	0.053

Sodium monofluorophosphate is easily soluble to the extent of 25 Gm. per 100 Gm. of water, and even the calcium salt is soluble (1 Gm. in 100 Gm. of water). The complex ion PO_3F^- has high stability in solution, which does not change unless *p*H is reduced to 2.5 or lower, when hydrolysis occurs rather abruptly.[15]

There is evidence to support the assumption that Na_2PO_3F does not hydrolyze readily in vivo to yield free fluorine ions. On the basis of fluorine content, the toxicity of Na_2PO_3F is 2.5 to 3 times lower than that of NaF[13] (see table 2).

Table 2. Toxicity of NaF versus Na_2PO_3F.

ACUTE TOXICITY OF SODIUM FLUORIDE (NaF) and SODIUM MONOFLUOROPHOSPHATE (Na_2PO_3F)

(Shourie, Hein, Hodge, 1950)

	F as Na_2PO_3F (mg/kg)	F as NaF (mg/kg)
Intraperitioneal LD 50 (rats)	29	10
Oral LD 50 (rats)	75	32

Na_2PO_3F — TOXICITY

(Dept of Pharmacology, U. of Rochester)

Maximal non-lethal dosage (female mice): 160 mg/kg
Maximal lethal dosage (female mice): 200 mg/kg

To follow the fate of orally ingested Na_2PO_3F a step further, it may be observed that even during the digestive process in the stomach, hydrolysis need not occur, since the average *p*H of pure gastric juice, 1.7, is rapidly elevated by acid-binding food-proteins; in infants the *p*H of the gastric content during digestion is generally much higher, or around 5 (Hahn,[16] Huenekens[17]). In the gastrointestinal tract, Na_2PO_3F is absorbed at approximately the same rate as NaF (Likins, Zipkin[18]).

The fact that Na_2PO_3F is about twice as effective as NaF in inhibiting acid production in saliva-glucose mixtures is an interesting feature, and it is also interesting to note that increasing concentration of calcium ions does not affect this FPO_3-inhibition, as is the case with NaF (Haydon, Hein, Gardner[19]). Altogether, the inertness of sodium monofluorophosphate in the presence of calcium ions—especially in food—may have an important bearing on the biologic activity of fluoridated salt based on this compound, both locally—in the mouth cavity—and systemically.

According to Burnett,[20] potassium monofluorophosphate depresses the solubility of dentin in acid to the same extent as NaF. Topically applied to the teeth of children of the average age of 12 years, Na_2PO_3F gave 20 to 30 per cent reduction of caries in one year (Hawes, Sonnes, Brudevold[21]).

A brief account may now be given of a pilot experiment which I designed for the study of fluorine absorption from fluoridated common salt by human enamel.

Powdered human enamel was prepared from 31 thoroughly cleaned molar crowns* by a modification of the Manly-Hodge flotation method.[22] Of the dentin-free powdered enamel, 97.2 per cent passed through a 120-mesh screen. Two different types of fluoridated salt were also prepared with the optimum fluorine content of 100 mg. per kilogram common salt, one containing sodium fluoride (Salt I), the other sodium monofluorophosphate (Salt II). The common salt used as vehicle for the fluorides was ordinary commercial vacuum salt of high purity (phosphate-free, containing 99.9 per cent NaCl).

One per cent solutions of these salts in distilled water were prepared. They therefore contained 1 ppm fluorine and 10,000 ppm NaCl. The absorption was effected at 37 C. with uniform, automatic shaking of 0.2 Gm. powdered enamel and 100 ml. salt-solution for periods varying between 10 minutes and 6 hours.

The fluorine consumed by the enamel was estimated by determination of the fluorine residue in the salt-solution after this treatment. Scott-Sanchis' colorimetric method was used for analysis.[23] Addition of appropriate amounts of the interfering substances to the standard solutions was employed to cancel out the interference effect, thus eliminating the necessity for distillation. The error due to dissolved enamel was slight and positive, corresponding to 0.05 ppm F.

In the 6-hour test the absorption of fluorine from the solution of Salt I, containing NaF, was of the order of 47 to 50 per cent, average 49 per cent (see table 3). The corresponding absorption from the solution of Salt II, containing Na_2PO_3F, was of the order of 47 to 53 per cent, average 51 per cent. Since 49 per cent of the initial fluorine was absorbed from both solutions after only 20 minutes, it seems that under the given conditions the fluorine absorption reached a maximum in the first 10 to 20 minutes.

Table 3. Results of pilot experiment for study of fluorine absorption from fluoridoted common solt by humon enomel.

FLUORINE ABSORPTION BY HUMAN ENAMEL — FROM SALT COMPOSITIONS (pilot study)

	Incubation (at 37° C)	Before treatment: Fluorine content gamma	After treatment with 0.2 g powdered enamel: Fluorine Residue, Av. gamma	Absorbed fluorine, Av. gamma
TABLE SALT I	10 min	100	58	42
1 % solution in distilled water:	20 „	100	51	49
(1 ppm F as NaF)	30 „	100	50	50
	45 „	100	50	50
	60 „	100	50	50
	6 hours	100	51	49
TABLE SALT II	10 min	100	54	46
1 % solution in distilled water:	20 „	100	51	49
(1 ppm F as Na_2FPO_3)	30 „	100	50	50
	45 „	100	50	50
	60 „	100	50	50
	6 hours	100	49	51

Table salt I: 0.01 % F(as NaF) per kilogram sodium chloride
Table salt II: 0.01 % F(as Na_2FPO_3) per kilogram sodium chloride

(SANTESSON-FISCHER 1955)

Both the chemical and the biologic characteristics of sodium monofluorophosphate suggest that this compound is especially suitable for salt fluoridation purposes. A fluoridated salt containing sodium fluoride is already currently in use in Switzerland (Canton Aargau), and a parallel distribution of fluoridated salt based on

*The teeth were kindly placed at my disposal by Prof. Y. Ericsson at the State Dental School, Stockholm.

Na_2PO_3F in some other territory might well be undertaken under controlled conditions.

Summary

A short review is given of the advantages and possibilities of salt fluoridation, and reference is made to the present (since 1956) distribution of artificially fluoridated salt on the Swiss market. I also advance the opinion that a complex fluoride less toxic than sodium fluoride, yet equally cariostatic—viz., sodium monofluorophosphate—may be especially suitable for salt fluoridation. Two different salt compositions, one containing 100 mg. F per kilogram salt as NaF, the other 100 mg. F per kilogram as Na_2PO_3F, were investigated. One per cent solutions of these salt compositions in distilled water (containing 1 ppm F) were shaken for varying time-intervals with powdered human enamel. The absorption of fluorine from the salt solutions, as determined, was found to be almost identical for both salt compositions, although Na_2PO_3F under the given conditions yields the essentially stable, complex FPO_3-ion and not free ionic fluorine.

Karlavägen 73.

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The Irrational Foundation of Statism

For some hundred odd years the U.S. postal service has been a nationalized industry. Year after year all other industries have been taxed in order to cover the growing losses of the post office. Run by politicians and operated according to antiquated principles of business and accounting, it constitutes a permanent drain on the economy. And yet, in spite of the conclusive evidence of waste and inefficiency, few question the wisdom of our ancestors in nationalizing the services of the Pony Express, Adams Express, Wells Fargo, and other private companies that helped to open the West. Most people reiterate our ancestors' errors: They point to the growing volume of postal business and assert that private enterprise could never handle it. But the same persons may make a hundred telephone calls through a private company for each letter they mail through the U.S. postal service. Or private companies may, within a few hours after production, bring them many quarts of milk from places hundreds of miles away before the postman delivers a single letter.

By Dr. Hans F. Sennholz in The Freeman, August 1957, Volume 7, pp. 15-16.

Fluoride Treatment of Teeth on an Individual Scale

Jesse Q. Sewell, M.D.
HARRINGTON, WASHINGTON

In recent years there has been a great deal of publicity concerning the effects of fluorides on dental decay. It has become the general consensus of opinion that fluoridation of drinking water will reduce tooth decay. There has been a great deal of time and effort spent by individuals and the public health department in an effort to get the water supplies of cities fluoridated so as to benefit the children growing in the city and drinking water from the city water supply.

In all of this work, two things have become apparent: 1. Those persons who are so unfortunate as to live in a rural area are obviously outside of the benefits of a fluoridation program. 2. Those children who are living in cities which have not begun to fluoridate water are likewise receiving no benefit from this fluoridation program.

It is possible that after use of a plan such as this in those areas which reject fluorides in city water supplies, public acceptance of fluoridation could be increased. This increase could come from increased tolerance to the idea of fluoridation derived from the common use of fluoride and from the presence of fluoride in many of the homes. It also could come from the eventual realization on the part of many families that it would be much simpler to spend a few cents a year in tax money to get fluorides into the water supply than it is to give a child three teaspoonfuls of water a day from a separate bottle.

In an attempt to rectify this situation in Lincoln County, Washington, the following work was done at the approximate cost of $110 to the Lincoln County Department of Health. Consideration was given to the general distribution of the population, the general distribution of fluorides in the county waters and to the attractiveness of a fluoridation program to the individual mother. This program has proven to be extremely effective. Where it is offered to the mothers, approximately 85 per cent of the mothers utilize the method of administration outlined below.

The following is a reproduction of the information sent to school officials, doctors and dentists in Lincoln County:

Lincoln County Health Department
Davenport, Washington
13 May 1957

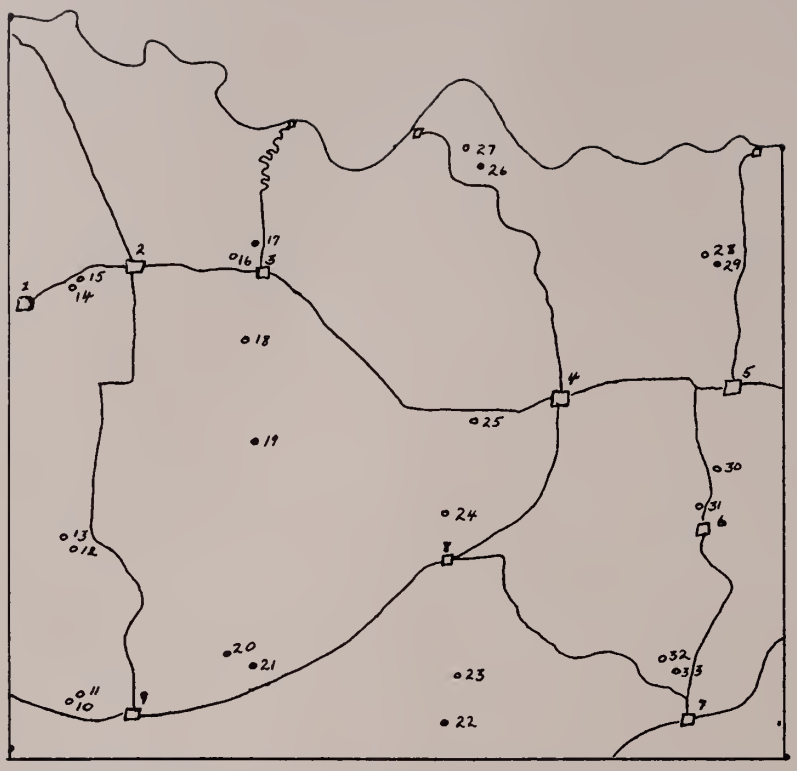
Fluoride Treatment of Teeth on an Individual Scale

Lincoln County, Washington, is a rural area of some 2,500 square miles with a population of 11,000. Five or six thousand of this 11,000 are town dwellers, most of whom are elderly people. There are around 1300 wells in the county, each connected to a house which is inhabited by the younger couples who are raising families. The problem of supplying fluoride to the children in Lincoln County then becomes a problem of individual fluoridation.

To complicate the situation there is already some fluoride present in the waters of the county.

There is no doubt that the administration of fluorides to individuals from the time that they are fetuses on up through the early teens is a beneficial maneuver. This administration of fluorides will decrease tooth decay in any given individual. In general, one may expect a 60 per cent reduction in tooth decay in a particular individual who has been exposed to optimal doses of fluorides since conception. There will be lesser benefits to children who are exposed to fluorides beginning at a later age, proportional to the lateness of inception of therapy.

The optimal quantity of fluoride in the daily diet as fluoride ion should be between 1 and 3 mg. per day. If this dosage is exceeded the only effect usually noticed is that of mottled teeth. There is a certain amount of fluoride present in the diet taken by normal people. There is also a variation in the amount of water consumed by normal people. For that reason, it is recommended that the fluoride be administered in a water soluble form in a concentration in daily drinking water of .7 to 1.5 parts per million fluorine. The assumption of this estimate is that the person will drink sufficient water to cause his intake of fluoride to be between .7 and 1.5 mg. of fluoride ion



Fluoride concentrations in Lincoln County Wells at sites selected as shown on the above map. Concentrations and statistics are listed in numerical order on the accompanying page [see table below]. Further information can be obtained from the Lincoln County Department of Health.

FLUORIDE CONCENTRATIONS IN LINCOLN COUNTY WELLS

	Name	Depth of Well	Depth of Casing	Presumably Surface or Ground Water	Fluoride F Parts Per Million
1.	Almira City Water			deep	0.55
2.	Wilbur City Water			deep	0.15
3.	Creston City Water			deep	0.20
4.	Davenport City Water			deep	0.45
5.	Reardan City Water			deep	0.20
6.	J. N. Byram-Edwall	107 ft.	60 ft.	deep	0.45
7.	Sprague City Water	deep	bad casing	both	0.15
8.	Harrington City Water			deep	0.30
9.	Odessa City Water			deep	0.55
10.	Jake Ott	120 ft.	60 ft.	deep	0.20
11.	Eugene Wraspir	12 ft.	12 ft.	surface	0.35
12.	Wm. Schogerman	8 ft.	8 ft.	surface	0.30
13.	Wallace Weishaar	190 ft.	30 ft.	ground	0.45
14.	O. J. Bagley	74 ft.	35 ft.	deep	0.15
15.	Mrs. Marian Bagley	unknown	unknown	unknown	0.20
16.	D. A. Roby	70 ft.	14 ft.	deep	0.20
17.	Henry Krause	155 ft.	50 ft.	deep	0.20
18.	Royal Nelson	300 ft.	Unknown	deep	0.30
19.	Murl Watson	6 ft.	6 ft.	surface	0.15
20.	Don Smith	10 ft.	10 ft.	surface	0.40
21.	Ed Zier	120 ft.	8 ft.	deep	0.45
22.	Alvin Ottmar	32 ft.	32 ft.	unknown	0.20
23.	George E. Knapp	352 ft.	soft casing	deep	0.35
24.	Delmar Schultz	6 ft.	4 ft.	surface	0.20
25.	Carl Grob	50 ft.	15 ft.	deep	0.10
26.	Norman Reinbold	300 ft.	100 ft.	deep	0.25
27.	Fred Reinbold	6 ft.	6 ft.	surface	0.60
28.	A. B. Heath	365 ft.	360 ft.	deep	0.25
29.	Eldon Howard	65 ft.	22 ft.	deep	0.35
30.	Lawrence Peterson	5 ft.	5 ft.	surface	0.30
31.	Hale B. Simpson	45 ft.	20 ft.	unknown	0.35
32.	Ed Ringwood	100 ft.	unknown	deep	0.20
33.	W. J. Ringwood	4 ft.	4 ft.	surface	0.20

daily. For the present purposes it will be easier to equate milligrams to parts per million. If a concentration greater than 2 or 3 ppm fluoride is reached, there is a possibility of undesirable effects. There has been no proven medical disability to the ingestion of fluoride in a water supply.*

Below is listed a formula which gives a fluoride ion concentration of approximately .32 mg. per dram of fluid. This formula has a number of advantages. 1. It is safe. A person would have to drink a sufficient amount of water to cause fatal water intoxication to come within 25 per cent of a fatal dose of fluoride. 2. It has a color that is not likely to be confused with any other preparation in the household. 3. It is an easily dispensed item. 4. It is very cheap. The most exorbitant figure that could be charged by a druggist for a gallon of this preparation is $2. This gallon would last one individual for at least 256 days, considering that there would be no fluoride in his local water.

THE FORMULA

Sodium Fluoride		0.55 Gm.
Distilled Water	q.s.	1.0 gallon
Green Color		3.0 drops

*In the above paragraph you will notice that dosage was equated to concentration and you will also notice that there was no adjustment made for the size of the person, the amount of water that they would drink, or the change of the seasons. There has been so much confusion in the current literature concerning these factors that it was thought best to omit them here. The most frequently made mistake is that of assuming that everyone in the world drinks exactly one quart of water daily. This mistake has been made so often that we are certain that many people reading this article assume that this is true. If the reader is in a thinking position and prefers to use a dosage of a medicinal which is individualized according to the size and needs of the individual patients, he is welcome to do so.

The label on the gallon jar should read in large red letters:

1. Sodium Fluoride Solution.
2. This preparation is non-toxic if taken as directed.
3. Do not use fluoridated toothpaste.
4. Do not have teeth treated with fluorides by a dentist.
5. Do not use this preparation when away from home.
6. Take only as directed.

Then in ordinary print on the label of this gallon jug is the direction to take 1 teaspoonful in a little fluid ..... times a day until 14 years of age. Pregnant women should follow this same dosage.

Special note should be made of the fact that a kitchen teaspoon does not hold a medicinal dram. The usual ratio is 4:5.

It is also worth note that mothers will occasionally omit doses for one reason or another.

In order to figure the dosage of fluoride for any given child, one must use the accompanying map and information sheet to extrapolate the approximate fluoride concentration of the waters in his area, and then add a sufficient amount of fluoride, teaspoonful at a time, to his daily diet so that you feel that he is getting between .7 and 1.5 mg. of fluoride a day in addition to that fluoride which is found in his natural diet.

Box 425.

"March of Medicine" TV Program To Be Aired January 23

The work of American physicians in remote regions of the world where native populations are largely dependent upon our doctors and medicine for their health and well-being is the television story to be aired coast-to-coast January 23. Entitled "MD International," the hour-long show will be presented at 10 p.m. EST over the full NBC-TV network both in color and black and white. This is part of a joint American Medical Association and Smith, Kline & French Laboratories project to inform the American public of people-to-people activities in the health profession for the promotion of better international understanding.

The telecast reports on doctors' activities in thoracic and general surgery, orthopedics, ophthalmology and general medicine in such far-flung areas as Korea, Hong Kong, Burma, Sarawak, Nepal, India, Lebanon and Ethiopia. A special March of Medicine team traveled more than 34,000 miles to film these doctors in their unofficial roles as America's "medical diplomats."

Poisoning with Liquid Plastic Catalyst

Report of a Case

J. B. Deisher, M.D.
SEWARD, ALASKA

With the development through modern chemistry of new, useful products for wide distribution, poisonous or harmful properties of some of them have brought additional problems to physicians. Since accidents commonly cause pediatric and adult mortality and morbidity, discovery of poisonous qualities of these new products merits reporting. The following is a report of the consequences of ingestion of plastic catalyst used for application of fiberglas protective coat to hulls of small boats.

CASE REPORT

A 34 year old Eskimo male longshoreman was admitted to the Seward General Hospital on September 5, 1956, in obviously intoxicated condition. He was vomiting and retching severely. The history, as related by friends, was that in the course of an evening's drinking he requested another drink and was jokingly directed to a "brand new bottle setting over there on the window sill." It was suggested that he could chase it "with that purple stuff in the bottle next to it." Fortunately he complied with the first suggestion only. Consumption of the second liquid presumably would have resulted in a plastic cast of the inside of his stomach. He consumed approximately 2 ounces of the material labeled "P-102 Catalyst." This resulted in quite prompt vomiting which continued for several minutes and suggested to his comrades that he should seek medical assistance. It is estimated that he was brought into the hospital about 15 minutes after the original incident.

On admission, because the nature of the substance consumed was not known, he was given mustard water to complete the emptying of the stomach prior to the arrival of the physician. A large stomach tube was subsequently inserted and the stomach lavaged copiously with soapy water. In addition to the odor of alcoholic beverage there was a distinct acrid odor to the material extracted from the stomach. It was then that the original bottle was obtained and a wire dispatched to the manufacturer requesting details of the composition of this substance. The following answer was received: "P-102 Catalyst contains methyl ethyl ketone peroxide contents 60 per cent, diluent dimethyl phthalate 40 per cent, active oxygen 11 per cent minimum."

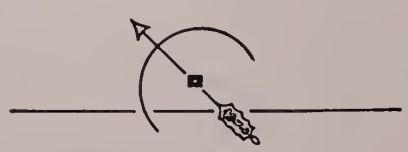
Examination of the patient revealed a well-nourished, well-developed adult Eskimo male who was stuporous and could be aroused only with difficulty. His only communications were that his stomach hurt and he seemed to experience pain on swallowing. The general physical examination was negative except for the marked reddening of the mucous membranes of the mouth and throat and some tenderness in the midepigastrium. The vital signs were normal.

He was treated with intravenous fluids, glucose, and vitamin B complex. Within a few hours he recovered from the alcoholic intoxication and complained of moderate headache. His major complaints however were of pain on swallowing and a burning pain in the upper abdomen. By the end of the first 24 hours he was unable to swallow fluid. He required intravenous hydration and alimentation for two days. The epigastric burning pain subsided in six days, although the dysphagia continued for only five days. During this time the mucous membranes of the throat showed whitish shredding as a result of the chemical burn which they had received. Lozenges of topical anesthetic gave little relief. Healing was accomplished spontaneously with the supportive therapy that was provided, and the patient was discharged in a chastened mood on the eleventh day.

Three weeks later he appeared in the office with the complaint that over the last 10 to 14 days he had noticed some difficulty in swallowing meat unless it was extremely well chewed and that on the previous evening he had been unable to swallow an aspirin tablet. Esophagoscopy revealed a stricture of the upper esophagus permitting passage of a 22F dilator. A stricture was felt in the lower esophagus as well. Over the next nine weeks his esophagus was dilated under local anesthesia up to 32F. He has had no complaints in the subsequent three months.

Final diagnosis was chemical burn of upper alimentary tract with subsequent cicatricial stricture of esophagus, due to plastic catalyst.

P.O. Box 247.



Pelvic Surgery

Deficiencies In Medical Education Revealed In Office Examination of 500 Women

MERRITT P. STARR, M.D.
ANCHORAGE, ALASKA

This paper is written in the belief that it is as important to know what we are doing as it is to know what we should do. I hope to illustrate the need for greater communication and understanding between practicing physicians, research workers, and teachers; and in particular, to illustrate the need for knowledge on how well the products of our research and teaching are actually reaching the public outside of teaching institutions and research centers.

This study was undertaken because it was brought to my attention, as it is to that of most doctors doing internal medicine, that an uncommon number of women who have undergone pelvic surgery, have numerous subsequent complaints. In many cases, these particular women are not seen again by the surgeon who performed their operation. Another reason is the growing interest in the relationship of estrogen to the incidence of atherosclerosis and coronary artery disease. Evidence is increasing that women who have had bilateral oophorectomies early in life have as high an incidence of coronary sclerosis as is found in men. I believe that this study is of some value because the population in Anchorage, Alaska, is fairly representative of the entire United States, and the statistics gathered here do not represent statistics gathered from a populaion from one region alone. Most of the persons living in Alaska at the present time have come within the last five years.

Statistical data were gathered from 500 consecutive female patients, routinely undergoing a complete history and physical examination. Information as to the type of pelvic surgery the patients had undergone was obtained from them, and confirmed so far as possible, by pelvic examination.

Table 1. Total Number of Cases of Pelvic Surgery in 500 Female Patients

Type Of Surgery	Cases	% of 500	Average Age at Surgery
Total pelvic surgery	177	35.0	
Hysterectomies	82	16.0	35.5
Bilateral oophorectomies before age of 40	27	5.4	29.5
Unilateral oophorectomies	41	8.2	28.5
Surgically sterilized before age of 35	74	14.0	
Multiple consecutive pelvic operations	41	8.0	

Hysterectomy Is Most Popular Pelvic Operation

As noted in table 1, approximately 35 per cent of 500 routinely examined women in office practice had a history of prior pelvic surgery. I recognize, of course, that women who commonly present themselves in routine office practice do not represent a cross section of the average female population, but rather those who have complaints. Eighty-two or 16 per cent of the 500 women examined had undergone hysterectomies; 69 per cent of these were performed before the age of 40.

It is interesting to contrast these statistics with the figures published by Crawson and Hobbs which indicate that 94 per cent of patients with endometrial carcinoma are beyond the age of 40. Moore, in his textbook of pathology, states that 10 per cent of the white race develop leiomyomas after the age of 20. Of the colored race, 30 per cent develop leiomyomas after the age of 20. Approximately 1 per cent of these have been thought to undergo some sarcomatous change.

Unfortunately we did not gather the statistics on the number of subtotal hysterectomies in which the cervix was left intact, but it is my impression that this number was fairly large. Of the 500 patients, 5.4 per cent had undergone bilateral oophorectomy before the age of 40, at an average age of 29.5. Nine of these patients

had undergone bilateral oophorectomy before the age of 25. The patient's usual story was the statement that she had been found to have an abnormal lump on routine pelvic examination, and that the surgeon, at the time of surgery, finding bilateral cystic ovaries had chosen to remove both of them, placing the patient in an artificial menopause.

Inadequate Medication

Most of the women had been advised to take estrogens for approximately three to six months following surgery. Then they were gradually weaned off of them so that approximately one year following the surgery, they were no longer taking estrogens of any kind. Many of these patients were found to be suffering from the tissue changes secondary to lack of estrogen. The unilateral oophorectomies and salpingectomies had been performed most often at the time of appendectomy. Often the patients were told that they had appendicitis and at surgery, the right ovary was found to be cystic or diseased, and was removed.

Source of Neuroses

A total of 74, or 14 per cent, had been surgically sterilized before the age of 35. This group represents a major problem to both the internist and the psychiatrist, because their previous surgery is usually the root of many of their presenting complaints. In addition to the 5 per cent who are in an artificial menopause, the remaining 9 per cent who have had tubal ligations or hysterectomies have developed castration complexes and inferiority complexes, providing them with considerable domestic discord.

Within this group are incorporated many of the women who gave a history of multiple pelvic operations, usually starting in the early twenties, and ending after everything possible to be removed had been removed. Every doctor is acquainted with this type, as they are resistant to every form of therapy but continue to invade his office and futilely occupy his time.

Deficiencies in Medical Education

In reviewing these statistics, I feel that they reveal noticeable lacks in medical education:

1. More emphasis should be placed on teaching that a high percentage of adults who develop benign pathologic lesions can carry them throughout life. Such lesions do not, in themselves, warrant surgery.

2. Biopsies should be made on ovarian tissue to determine malignancy of cysts rather than to remove the whole organ.

3. The surgeon should more thoroughly educate the patient as to the nature of the operations, its consequence—including, in the case of gynecologic surgery, sterility—and the nature of the artificial menopause. In many of the cases above, estrogens should have been administered throughout the remainder of the patient's life to prevent the tissue changes consequent to the loss of estrogen.

Statistics gathered in office practice serve to point up misconceptions and rationalizations in therapeutics and diagnosis. They should be used to show where emphasis is needed in the medical school curriculum and in planning research programs.

Doctor's Clinic, 423 D St.

Western Conference of Prepaid Medical Service Plans

November 6-9, 1957

PROCEEDINGS

Report of the Permanent Committee of Plan Administrators

MR. T. H. HAMMOND
Committee Chairman
Portland, Oregon

From 1948 to 1953, Conference attendance was pretty well limited to plan administrators and a few physicians. The non-professional delegates outnumbered the physicians at least two to one. The programs involved mostly an exchange of ideas between member plans. Few outside speakers were invited to participate.

In 1953, Drs. Pitman and Watson, as Chairman and Secretary of the Conference, established a working committee known as the Permanent Committee of Plan Administrators. From that point on, the Conference has been reaching out to seek advice, guidance, criticism, and the thinking of those not directly involved in the management of a prepaid plan.

Some 40 doctor-sponsored prepaid plans in the area extending from Hawaii to Wyoming and the Mexican border to Western Canada make up the Conference with a total subscriber list of close to three million. To have a meeting such as this takes planning and time. But meetings such as this make up only a part of the activities of the Permanent Committee. Let us look back a few years.

Activities of Conference Reviewed

At the 1953 Conference in San Francisco, a resolution was passed to implement a "Transfer of Membership Program." All plans adhere to this agreement. This assures continuity of coverage without loss of original membership date to members moving from one plan area to another. Adoption of the Blue Shield Transfer Agreement would not answer the needs of the Western Conference since there are numerous doctor-sponsored local bureaus in Washington and a few in Oregon which are not members of Blue Shield. This Transfer Program is a real sales aid.

At the 1954 Conference in Victoria, the "Service Benefits Agreement" was adopted and is now subscribed to by all plans. Briefly, this extends service paid-in-full benefits to members from one plan area who require treatment in another plan area. This Agreement is most important and is a sales tool which is not always given proper emphasis by our sales staffs. It is the one benefit which cannot be provided by competition.

At the Victoria Conference, three working sub-committees were established—Sales, Statistics and Claims Processing. These Committees hold regular workshops each year in which Plan personnel engaged in these activities participate. The Permanent Committee urges every plan to participate. Much can be learned. These are workshops in true sense of the word and would do credit to some of the larger corporations in this country.

At the 1955 Conference in Seattle, a resolution was passed recommending that all member plans use in their literature and advertising the line "Member of the Western Conference of Prepaid Medical Service Plans." Most plans are doing this. The Permanent Committee encourages all plans to use this sentence routinely in their literature and advertisements.

At the 1956 Conference in Sun Valley, Messrs. Steen of Washington and Lyon of California, part of the AMA task force, explained the then-contemplated Medicare program with the Department of Defense. Although this Conference did not enter directly into the negotiations,

there is little doubt that Conference backing for these two gentlemen helped pave the road for nationwide negotiations. The Permement Committee feels that the Conference should continue to use Messrs. Steen and Lyon as spokesmen for this program. To the best of the Committee's knowledge, the Medicare program has been going quite smoothly—to the satisfaction of the physicians, the service-men and the Department of Defense.

According to the American Medical Association Washington Newsletter of September 27, 1957 the various states have a number of different arrangements for using federal medical care matching money to secure medical care for the aged, sick and disabled. Colorado, in caring for dependent children and the blind, uses its own and federal money to buy from Blue Shield and Blue Cross rather complete medical coverage. According to this release some federal officials feel that most recipients, notably the aged, need maintenance care with frequent home and office calls. The September 27 Newsletter goes on to state that security and retirement programs, public and private, are underwriting the public's income to such an extent that the share of public assistance money that can be put aside specifically for medical care is growing at a rapid rate. In two large states this has increased from 6 per cent to 35 per cent in 10 years, and it is estimated that this figure will go to 50 per cent in another 10 years. It is not too difficult to imagine the federal government or some individual state governments deciding at some time to experiment in some way with the Medicare principle for providing this health care—using the doctors' prepaid plans as the vehicle for administration.

Approval of Uniform Contract Sought

For a number of years the Conference has been talking about a uniform, Conference-wide contract. It was not until the Sun Valley Conference last year that a resolution was passed instructing the Permanent Committee to prepare an actual contract to be submitted to all 40 plans for signature. Meetings followed and correspondence ensued. Through the fine efforts of Mr. Donovan, the Permanent Committee Secretary, such a contract has become a reality and the actual contract has been mailed to each plan. Each signator to this contract will agree to provide specified basic benefits to inter-plan or inter-state groups. The Permanent Committee urges each plan to sign the necessary document immediately if they have not already done so. It is particularly important that this be accomplished in a minimum amount of time, in view of the problems being encountered by the national Blue Shield Organization in securing the approval of all Blue Shield plans to a basic uniform contract. Please mark this on your calendar as a "must."

A sub-committee of the Permanent Committee, under the chairmanship of Mr. Nyren is now working on a project which is most important and one which is most difficult to solve. It is really a part of the Uniform Contract. The plans which agree to the Uniform Contract must in turn reach an understanding on the rules for regional underwriting. This involves uniform understanding and agreement on mutualization, contract interpretation, administration of claims, sales policy, treatment of underwriting regulations, and so forth. Back in the early part of 1954, we had a tri-state contract with the Stationary Engineers with head offices in San Francisco. This contract went by the boards because we lacked agreement on the fundamental rules of regional underwriting. This must never happen again.

Mr. Nyren's committee will make a final report to the Permanent Committee within the next few months. Thereafter, each plan in the Conference will be contacted for approval.

Conclusion

Meetings like this one would probably justify the Conference. However, the items I have enumerated must not be overlooked—Transfer of Membership Program, Service Benefits Agreement, sub-committee workshops, by-line about the Western Conference in literature and advertising, Medicare program, uniform Conference-wide contract, and uniform Conference-wide underwriting. These steps have been built on the basis of mutual trust and understanding with but one common goal in view—progress. The Western Conference is a non-legalistic body—a gentleman's agreement is the basis of our accomplishments.

Do the People Want Socialized Medicine?

MR. WILLIAM MERCER
Employe Benefit Plan Consultant
Vancouver, British Columbia

The question I am asking is not whether socialized medicine is good or bad;—the question is whether or not the people want it.

By socialized medicine, of course, I mean the active participation of the federal, state or provincial and municipal governments in the provision of medicine. By medicine, I mean hospital care; medical, surgical, obstetrical and diagnostic care; drugs and even dental care. Roughly speaking, it is the problem of looking after people while they are sick—and keeping them from getting sick—although I do not include the problem of providing them with an income while ill.

We already have socialized medicine of a sort in every country of the world. Most countries have some government program for providing some medical care and treatment: dental examinations for children, free x-ray clinics, tuberculosis sanitoria, mental institutions, hospital and medical care for service men and even their dependents, and complete care of wards of the government, such as Indians and Eskimos.

When most people talk about socialized medicine, they mean socialized medicine of the interfering kind, in the same sense that they talk about government interference in private industry. Socialized medicine also usually means the compulsory coverage of all citizens, wealthy and poor alike—whether or not they as individuals want the coverage. To the best of my knowledge, so far in the United States your socialized medicine covers only people who really want and need the coverage. In Canada we have gone slightly beyond that and the rest of the world has gone far beyond it.

We have to be careful when we use the word *socialism*, because it is a relative term. Both of our countries suffer, tolerate, or enjoy (depending upon how you look at it) a fair degree of socialism. Both of us have a socialized postal system; you have your Tennessee Valley Authority; we have our Trans-Canada Airlines, and so on.

I suppose that when we use the world *socialism* we are thinking about a system which interferes with our own economic and perhaps personal freedom. I do not suppose the medical profession has expressed public concern over the gradual socialization of electric power. By the same token, I do not expect the private power interests will take much of a stand on socialized medicine.

In other words, many of us take the stand that a little bit of socialism may be all right—as long as it is not in our own field.

How Much Socialism Is Desirable?

Opinions differ on how much socialism is desirable. The fact remains that a degree of socialism is here and it is here to a substantial degree in the provision of hospital and medical services already in our two countries, and to a great degree in many other countries.

An example is the current worry of the medical profession in the U.S.A. that the Medicare program for servicemen's dependents will go beyond the bounds of negotiating stabilized fees in local areas. There will be a natural tendency for the low schedule areas to bring their feees up to the high schedule areas and a long range squeeze to uniformity, without the government being directly blamed for the indirect result in adopting the Medicare program.

It has become common practice for American and Canadian government agencies to make direct subsidies to the medical profession and hospitals for care of indigents. Often those who provide the service receive, collectively, a fixed sum and negotiate among themselves in a nice way for the distribution of that money, on a fee-for-service or patient-day basis. Right away, then, we have one of the worst possible kinds of intervention, the interference with total income of those who provide the services, in spite of the fact that those who provide the services receive a great deal more under this arrangement than they would receive from billing their patients directly.

As time goes by, some of the interferences of government become accepted by the people, just as the human body adjusts to a chronic ailment. The better the adjustment, the less is the need for a cure.

Most, but not all, of the government interference in medicine so far has been accepted by the American and Canadian public and even by those who provide the services. But let us take a big step beyond these programs and think of a comprehensive plan operated by the government to cover all or nearly all of the people in a particular area. This is the monster that people generally have in their minds when they talk about state medicine. Such programs exist in Great Britain, New Zealand, Denmark, Sweden, Australia, and many other countries in varying degrees. As far as hospitalization is concerned, we have socialized medicine in Canada and many people think this is the thin part of the wedge.

How Socialized Medical Schemes Develop

How have these schemes developed? Let us look at some of them generally, then individually. First of all, the politicians made promises of provision of services. Sometimes the promises said the people would have to pay premiums for their services, but sometimes they did not, it being intended that the services would be paid for out of general tax revenues. But the point is that the formal plan of socialized medicine usually started with a political promise.

In my own province of British Columbia, a full-fledged, province-wide hospitalization scheme was boldly put into effect in 1949 by one of the political parties several years after it had put away in moth balls an Act enabling it to grant such services. In this case, the scheme was appropriately called a *hospital* scheme, not a *hospitalization* scheme. The politicians wanted to rescue the hospitals from financial difficulty and at the same time do something politically popular. In many cases the hospitals had reached the point of bankruptcy. The people were given a hospital scheme in return for the payment of premiums, but many of the politicians believed that the scheme of benefits was not so important as the collection of premiums. In more recent years another political party has abolished the collection of premiums, the hospitalization benefits being met by an increase in the provincial sales tax. It is clear to those who have studied the development that the scheme was developed in answer to the needs of the hospitals and of the politicians, rather than the needs of the people. The people like the hospitalization scheme and so do the doctors; but it was not created from their direct demands. I would say it would now be very difficult to find a doctor in British Columbia who would speak out against this socialized scheme.

In the Province of Saskatchewan a hospitalization scheme has been flourishing since 1947. It works well. Saskatchewan is run by a nominally socialistic government (the only one in Canada), and has been for many years. We might jump to the conclusion that this scheme results from the socialistic learnings of the Saskatchewan people, but they are not socialistic. They are mainly farmers and as such are individual entrepreneurs—without the benefit of anything like the U. S. farm price support program. The demand for a hospitalization scheme again in this province was created by the politicians. Having had a taste of the scheme, the people now like it (and so do the doctors) and virtually all of the population who are required to pay premiums do so.

In the Province of Alberta, the provincial government has operated a socialized hospitalization scheme through the municipalities. It makes grants to the municipalities which, in turn, make payments to the hospitals. The tax-paying citizen pays deterrent charges and the citizen

who is not a municipal taxpayer pays a small additional premium as well.

The Alberta government is a private enterprise government of the strongest kind. It thinks of your Republican Party as parlor pink. It is for private enterprise first, last and always. It is the only province in Canada that is completely debt-free. If you said the government was a socialistic government because of its hospital scheme, they would think you were either terribly ignorant or a comic. The provincial government makes these grants to the municipalities to hush protests of the municipalities that they are not getting their fair share of provincial taxes. Once again, the scheme is an arrangement among politicians and did not arise from direct demands of the people.

As the result of a political promise made 38 years ago, the Federal Government in Canada has offered to contribute approximately one-half the cost of operating province-wide hospital schemes in all of our provinces. The Federal Government said to each province, "If you will put in a hospital insurance plan that meets our requirements, we will contribute one-half of the cost; to get a maximum share from us you will have to do certain things:

(a) First of all, you must make your hospital plan available to all of your citizens, wealthy and poor alike.

(b) You must maintain adequate standards in your hospitals.

(c) Once your citizens have paid any premiums or tax you may care to charge, you must provide free and unlimited hospital room and board at the ward level, hospital nursing service, drugs, and all other services and things normally provided in hospitals.

(d) You may, if you wish, impose a deductible or deterrent charge to discourage the unnecessary or frivolous use of hospitals by your citizens, but remember, if you wish to do this, this deterrent charge will have to be paid entirely by your citizens, and it will reduce our share of the cost, and the amount of money we are prepared to give you.

(e) Your plan must not only provide benefits for patients *in* the hospital but also for your citizens who *visit* the hospital to have such things as blood tests, urinalysis, x-rays, electrocardiograms and the like.

Coercion by Federal Government

The Federal Government has not said the provinces must provide all these benefits, but they have said that the provincial governments will have to make the scheme as generous as set out in order to get the maximum contribution from the Federal Government. But how can a province refuse to institute socialized hospitalization and even medicine under this type of coercion?

What would your states do if your Federal Government offered to pay one-half of the cost of a state plan which provided free hospitalization and free medical services rendered on an out-patient basis? Would the emotional problem of socialism deter them?

Under this arrangement our Ontario Government which, culturally, politically and economically has the same position in Canada as New York State has in your country, is going to dive head-long into the Federal plan in order to get its fair share of the Federal grant. This does not mean that the people in Ontario have long demanded a hospitalization scheme. It simply means that the politicians in Ontario believe that it will be expedient for their party to make this available to the people. It is safe to bet, however, that once the people have had a taste of it they will want it to continue, although there will no doubt be protests about various features of its operation.

We all know that a health insurance scheme in Great Britain has been run by the Government for many years—since 1911, as a matter of fact. In 1948, the scheme was considerably changed and the amount of care and the availability of it was substantially increased. The people had had long experience in state medicine by 1948 and it is reasonable to say that when the scheme was put on its new basis the politicians probably were obeying the demands of the people. The people wanted an extension of state medicine.

Under similar schemes run by other governments in New Zealand, Denmark, Sweden, Australia, and Brazil, the hospitals are subsidized heavily by the governments. Sometimes the doctor is paid on an annual fee basis computed on the number of people in the doctor's panel, and sometimes he is paid on a fee-for-service basis.

None of these schemes works perfectly, however, and there always seems to be the Harley Street physician with a profitable private practice for those who can afford to pay.

Most of the people I have interviewed who have been covered under these schemes seem to have accepted them. Some of them were surprised to find that anyone would suggest that state medicine would be inferior to medicine operated entirely through private enterprise. One 40 year old person I interviewed, from Denmark, had never experienced anything different from the national health scheme and had no basis for comparison, but could not quite understand how anyone could suggest anything better.

I must conclude that after a state medical plan gets through its early development period it is likely to be looked upon favourably by most people.

Britain's National Health Service

The National Health Service in Great Britain, which might be named as one of the schemes which interferes most with private practice, seems to be generally acceptable to a large segment of the medical profession. It is difficult to get an unbiased opinion. The British doctors with whom we visit tend to be the exceptional ones and they are generally opposed to the scheme. I think the outstanding doctors suffer under the scheme, while the average doctor does about as well, or perhaps a little better than he used to. I suspect that the poor doctor does better.

There is no question that there have been tremendous abuses of the service. The volume of care that now must be provided by the general practitioner (in the terms of the number of patients he sees per day) has skyrocketed. It has all the evils of a bureaucracy of the worst kind. We have all heard funny stories about the outlandish expenses of government agencies. Let me tell you one that I think tops them all. Some of you may have heard it before but it is good enough to hear again:

Following is a true and verbatim exchange of cor-

respondence between a London hospital and Britain's Ministry of Health:

> From the Ministry, March 16, 1954: Sir: I am directed by the Minister of Health to request that the committee will forward for examination a few sheets of paper off one of their toilet rolls purchased at 5 6s 9d per gross. It is also requested that the weight of one of the rolls may be furnished.
>
> From the Hospital, two days later: Sir: Herewith the sample as requested. The weight per roll is 12 oz.
>
> From the Ministry, six weeks later: Sir: It was partly due to complaints by the hospitals of the quality of Stationery Office toilet paper that the specification was improved to exclude papers containing mechanical wood and of low bursting strength. The sample purchased by your committee contains mechanical wood (about 20 per cent) and bursts at 5 to 7 lbs. as compared with *our* minimum burst of 8 lbs., and accordingly the sample is not considered suitable for supply.
>
> Furthermore, the pieces are 6½ in. long against our specified 6 ins. and therefore the committee have been getting approximately 8 per cent less pieces per roll than that of central supply. If the rolls are 12 oz. including the core, a further shortage of 5 per cent less pieces is sustained as central supply is 12 oz. excluding cores.
>
> Any saving which may be more apparent than real should be revicwcd in the light of the above information. A sample of better quality central supply is forwarded herewith.
>
> From the Hospital, six weeks later: Sir: My committee have given most careful consideration to your letter of April 27, but they are unable to agree with your conclusions.
>
> The rolls purchased weigh 12 oz. excluding the core and the assumption made in your letter is therefore incorrect.
>
> So far no adverse affects on either patients or staff appear to have been sustained by using a paper of 1 lb. to 2 lb. lower bursting strength than that supplied by the Stationery Office by reason of the inclusion of mechanical wood. In this connection my committee would be interested to know what mechanical wood is, as they are under the impression that wood is a natural or vegetable product. Is there a mineral wood as well as a vegetable wood?
>
> With regard to the question of length of the sheets my committee feel that 6½ in. provides a greater margin of safety for patients who are restricted in their movements and that there is a possibility of adding to laundry costs if a smaller sheet is used.
>
> Finally, the difference in cost between toilet paper supplied by the Stationery Office and that purchased by my committee shows a saving of approximately 20 per cent and this amounts to about £200 per annum. It would therefore appear that the saving is real and not apparent and, in view of the Minister's request for economies in the hospital service, my committee sees no reason for changing their source of supply.

In answer to the question: "Do the people want socialized medicine," I must regretfully but honestly answer that I think they do, if there is any chance of getting it. It is like the well-adjusted married man sitting at a bar. A beautiful girl sits beside him, touches his arm and says: "Are you preoccupied with sex?" His answer, of course, is: "Well, I wasn't up to now, but—!"

In spite of all this, suppose you are like I am. You are opposed to socialism in general and socialized medicine in particular. I think it can and should be fought. After all, death is inevitable but each of us should forestall it as long as possible.

Convince Politicians Socialized Medicine Not Necessary

The obvious course is to convince the politician that socialized medicine is not necessary, and to show him, on the basis of experience in other parts of the world, including my own country, that he is likely to be politically crucified if he brings it about too quickly.

Now if we are going to convince the politicians that socialized medicine is not necessary, we must know the enemy's arguments. After all, the politician is close to professional sociologists.

The following is what I believe goes through the sociologist's mind:

> The ordinary man wants good medical care to keep him and his family well and to reduce his suffering and to improve his chances of recovery when he is sick. He wants to be able to obtain the care when he needs it, without long delays because of shortage of facilities and personnel. He wants to get the best care possible within a reasonable distance of his home. He wants to know that it is available, whether or not he needs it at any given moment.

Concern Over High Costs of Medical Care

However, the costs of medical care are high, and as medical knowledge increases, they become higher.

The costs of medical care are difficult to budget for. Unless the citizen carries insurance, he does not budget for medical care. If he does have medical expenses he faces the problem of paying for them at the time he is ill, the very time when his income is reduced.

The nation is more conscious than the individual citizen of the importance of health because it is concerned with the well-being of all of its people. A country is weakened if its people are unhealthy. The efficiency of the labor force, the economy of the country, its strength in time of war, are affected by the physical and mental condition of each citizen. Public funds must be spent to care for and support the people who cannot provide for themselves because of illness.

The nation as well as the individual, therefore, has an interest in the costs of medical care, and in the standards of care available. Governments are already involved in health measures that require community rather than individual action. The establishment of a nation-wide health program depends on whether a nation is so concerned about the health of its individual members that it believes it should assume further responsibility in seeing that health needs are met.

The people who provide medical care are also concerned about the costs. The hospitals must be able to meet their financial obligations. They have traditionally financed their capital costs from voluntary funds supplemented by government contributions. Their day-to-day operating costs have been financed to a large extent by patients' payments. As the costs have risen the charges have risen, and more people have found it difficult to pay their bills.

Many hospitals have been in serious financial diffi-

culties. They have appealed for more charitable gifts; they have received increased funds from governments and they have tried to work out ways by which the ordinary man can pay his own bills by installments in advance. Hence the prepayment plans organized by hospitals. Yet these plans have themselves created problems.

At the same time, the theory has developed that it is not only patients who should pay the operating costs of hospitals. Modern medical methods call for an increased use of hospitals and a large part of the population will require hospital services at some time. Everyone wants the services to be there if needed, and a hospital must keep some empty beds. It is argued, therefore, that all people should help pay for maintaining the services, as they do for the fire department.

Before the prepayment plans developed, each doctor was his own collection agency and he always had a proportion of unpaid bills. He has given much free service and, as in hospitals, the rich have paid in part for the poor. Despite the desire of doctors to provide good medical care for all, the treatment they have been able to prescribe has been controlled somewhat by the patient's ability to pay for a specialist, for hospital care or for expensive drugs.

Problems in connection with facilities and payment for services are also experienced by pharmacists, nurses, dentists, and all other health personnel.

Can the prepaid plans answer all the sociologists' requirements? I think they can, given courageous and enterprising management and assuming a high and broad, rather than narrow, standard of ethics by the medical profession.

How far can the prepaid plans go to satisfy the needs of the politician and ultimately the people as a whole? The prepayment schemes (including insurance company contracts) now successfully cover a large percentage of the population for a large part of the cost of medical and hospital care. Furthermore, the underwriters are definitely competitive and, all things being considered, the people get good value for their premiums. With respect to those who are covered and to the benefits covered, most prepaid plans should feel they are doing a good job. But the prepaid plans have fallen far short of the mark in many respects. The politicians have plenty of fuel to use.

Specific Problems

Let us get down to specific problems. The indigent cannot prepay his premiums let alone pay his actual medical expenses. Some people, such as pensioners, though not actually indigent as defined by government welfare agencies, find they are financially unable to prepay the premiums for their costs of medical and hospital care. Many aged people cannot obtain prepaid coverage even if they can afford it. The self-employed person, particularly the one who has a very serious disability or medical impairment, usually finds it difficult to make an arrangement adequately to prepay his expenses for medical and hospital care. Farmers are out in the cold in many areas. Some people live in places where prepayment does very little good, for the medical and hospital services are simply not available in their areas.

If it is argued that hospital expenses and doctors' fees have become unreasonably high, should the prepaid plans try to exert stronger pressure to keep those costs down in fear of state medicine?

It is often charged that prepaid doctor-sponsored plans have failed to represent the subscriber in negotiating restrictions on increases in the doctor's fee schedule. No doctor-sponsored plan, to my knowledge, has gone the whole way in establishing an independent mechanism for negotiating and arbitrating increases in the fee schedule. The public generally thinks the prepaid plan is acting on behalf of the subscriber but has any prepaid plan really taken the position that it is the bargaining agent of the subscriber?

If the politician argues that the prepaid plans do not adequately allow for covered subscribers to transfer from one area to another while retaining uninterrupted coverage, should not the prepaid plans negotiate savings bank arrangements or transferability of coverage agreements among themselves?

If the prepaid plans freely allow subscribers to incur unnecessary services and the medical profession encourages excessive utilization, should the prepaid plan strengthen its control to diminish the excessive utilization and overservicing?

If the politician charges that a prepaid plan does not cover enough services, should the plan broaden its contracts?

On the face of it, the answer to all these questions seems to be "Yes" but watch out. Is there not a trap in our path? Suppose a prepaid plan in a given area becomes very successful through fear of the ogre of state medicine, and satisfactorily avoids virtually all of the criticisms of the politician. Will not the plan create the very mechanism which the government needs to start a government health plan? What is the difference between the prepaid plans putting the squeeze on doctors' fees and the state doing the job?

The danger is quite clear. As the politicians criticize the agency that provides health insurance on a voluntary prepayment basis, this agency will attempt to strengthen its hands. The better it does the job the more likely will be its capture by a government under a political party that finds it expedient to take the credit for offering comprehensive medical care to the entire public in that area.

Minimum Objectives of Prepaid Plans

However, there is an escape. Remember that when the people have a taste of state medicine they apparently like it; what you have to do is stop the people from getting a taste; therefore you have to stop the politician from using state medicine as a plank in his platform. As stated earlier, the public probably would vote "Yes" on a referendum asking whether they want a government-operated hospitalization scheme—and perhaps even a government-operated doctor care scheme. Here are some minimum objectives or aims that I think the prepaid plans should keep uppermost in their minds if they sincerely want to forestall state medicine:

(1)—No prepaid plan should make itself so strong in a given area that it becomes a clear-cut nucleus for a government scheme. The plan should promote healthy competition from other underwriters.

(2)—The plan should see that the politically influential as well as the politicians themselves are covered under the prepaid scheme.
(3)—The level of coverage that is provided by the plan must satisfy most but not all of the public's needs. The public must be educated to accept the fact that not every expense should be covered. It is not just a question of deterrent fees; the plan should recognize the need for luxury care for those who want to buy it outside the plan.
(4)—The plans collectively should see that virtually everybody who should be covered is able to obtain prepaid coverage whether or not he becomes covered. This requires that the prepaid plans set out clear boundaries between the medical care for which the government will accept direct responsibility and the medical care which the prepaid plans will cover. The wards of the government, the indigents, some of the aged, those in mental institutions and T.B. sanitaria should continue to be covered by government agencies but it is important that the plans decide what is their responsibility and what is the government's responsibility. To the best of my knowledge nobody has made a sincere effort to set out clearly what part of medical and hospital care should be undertaken by the government and what part should be undertaken by voluntary insurance agencies. The self-employed and people in lightly populated areas must be given an opportunity to prepay their expense.
(5)—The plan should see that the doctors are paid enough to encourage an adequate supply of doctors.
(6)—To prevent the politicians from arguing successfully that the government will have to step in to provide hospital beds where private enterprise has failed, the hospital insurers should take a hand in meeting depreciation and interest charges for new construction.
(7)—The prepaid plans will have to educate the public that it is definitely not desirable to cover all medical expenses. Who knows how much medicine is enough? There is a natural limit to the amount of food we can eat, clothes we can wear, cars we can drive, and the like. But none of us is an absolutely perfect physical specimen and there is no theoretical limit to the amount of medical attention we can demand in an attempt to be one. In the field of mental health we suppose that there is only one perfectly normal person and all the rest of us deviate from him in some respects, no matter how minute and unimportant those deviations may be. For the purposes of outlandish illustration only, if the goal of all of us is to be absolutely normal, we should each have to be provided with a full-time psychiatrist.
(8)—The prepaid plans will have to set up mechanisms for negotiating levels of fees for the doctor's fee schedule and levels of charges in the hospital. Ultimately the plans and the doctors will both have to accept arbitration techniques to settle the schedules. Let the doctors figure out the ratio of fees for various items in the schedule but the total dollar volume derived from a schedule will have to be settled by negotiation and arbitration. Now, with the predominance of prepaid medicine, the decision on the percentage of the national income which is to be diverted to medicine is being taken from the individual and placed in the impersonal hands of unions, employers, the medical profession, insurance underwriters and the hospitals. Under our current high levels of prosperity, the absence of realistic bargaining among these parties has not appeared to be a serious problem but with medical costs soaring as they are it may come. More scientific methods of creating fee schedules will have to be adopted than have appeared to date. The supply of doctors in a given area in relation to the demands of the public for service in that area is just as important a factor as the skill that is required to perform a particular procedure. The point is that once the prepaid plans become successful in covering virtually all of the coverable people for most medical and hospital services, there will no longer be a private practice yardstick as a measure of reasonable expense. The nearer they get, the weaker the yardstick. If the plans do not find measures that the public will accept, the Commissar will step in. The plan must uncover abuses of utilization and service and find steps to diminish those abuses.

Conclusion

I think I can sum all of this up in this way: It should be possible for the prepaid plans and the medical profession to jointly, *not individually*, but *jointly*, make this simple statement:

> No citizen is denied necessary medical attention by reason of his inability to pay.

Until this statement is true (if it is not substantially so already) and until it is plastered on the billboards of America, socialized medicine is a threat and a fairly immediate one.

How to Prevent A Blue Shield Crash

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Have you ever heard of the phililoo bird? It is a mythical creature that flies forward but looks backward. It can see what it has passed but not what lies ahead. So it sometimes wings away from one danger only to flap blindly into another.

We physicians have our own phililoo bird: voluntary health insurance. It has borne us away from grave danger. But while looking thankfully back at all the safe distance traveled, it seems unaware that it is heading straight toward new peril. What new peril?

One that the very success of voluntary health insurance has created: Blue Shield was begun as an alternative to government control of medicine. It has worked beautifully. Too beautifully, in fact. For the commercial companies, which once called health insurance unworkable, have learned they were wrong. So they now threaten to take over the whole field.

In too many places Blue Shield is either an indemnity plan or has woefully inadequate service benefits. Because of this, there is a good deal of public dissatisfaction with the plans. And such dissatisfaction is grist for the commercial companies' mill.

Going, Gone

They have already wooed away large numbers of middle- and upper-income Blue Shield subscribers. Their medical-surgical policyholders, 63,000,000 of them, already outnumber by 62 per cent the total enrollment of the Blue Shield plans. How have they done it?

By underselling Blue Shield with indemnity contracts. They can afford to compete in this way, because their subscribers are a carefully selected lot of good risks, people who use their policies less than the average. The poor risks, those who are sick more often, have to stay with Blue Shield, since the commercial companies do not want them.

As a result, some of the doctors' plans are losing so many good risks that they may soon be left with a dangerously high proportion of poor risks. When too many subscribers make above-average use of their policies, subscription rates will naturally have to rise—again and again, perhaps. Inevitably, this will mean that low-income subscribers, no longer able to afford Blue Shield, will have to drop it. Probable consequence: a catastrophic Blue Shield crash. And if Blue Shield goes, we physicians lose a staunch guardian of our professional freedom.

To understand how this ominous situation has come about, let us take a brief look at the history of voluntary health insurance in the U.S.

The Bad Old Days

The need for some such insurance was first realized during the great depression of the 30's. In those years, increasing numbers of Americans found it almost impossible to pay doctor bills. Yet because of a general lowering of living standards, they needed more medical care than ever before. Physicians were working harder and harder for less and less money. The menace of socialized medicine began to grow.

Sorry—Impossible

AMA asked commercial insurance officials if they could find a way to work out some sort of health coverage. The answer was a polite no. Health insurance, the officials said, would violate certain unalterable principles of insurance.

The main principle they cited was this one: All insured things or persons must be divided into classes according to the risk involved in insuring them; and each such class must have different premium rates. For instance, the fire risk for a wooden house is greater than for a brick house. So the premium rate must be correspondingly higher.

But no such actuarial law could be applied to health insurance, said the insurance men. They explained that the families the doctor wished to insure were the families that needed care most. They would use their insurance most often and would therefore have to be placed in a bad-risk, high-rate class. Yet these were the very families that could least afford high rates.

One Happy Family

The insurance companies' turn-down of the doctors seemed based on sound economic fact. But it did not take into account a simple but tremendous discovery made a few years earlier:

Late in 1929, a Texas hospital had taken the unheard-of step of enrolling all the schoolteachers of Dallas in a hospitalization insurance program. This was a daring gamble because, as you know, women are ill more often than men, and the elderly more often than the young. But the hospital made no distinction among the 1,400 schoolteachers on the basis of sex or age.

Everyone was integrated into one group. Everyone paid the same premium. And everyone was happy because the hospital soon found that its gamble was a safe one.

Before long it was realized that the community as a whole had the same annual sickness rate as the schoolteachers, and that it would be equally safe to enroll other groups in a hospitalization plan. Thus was discovered the simple principle of community rate—the basis of the Blue plans.

We're Off

The idea spread fast. By 1939 there were 48 Blue Cross plans with more than 3,000,000 members.

That same year, California's doctors reached a historic decision: They decided to apply the community rate idea to surgical care. In other words, they set out to solve what insurance men considered a hopeless problem.

So Blue Shield was born. The phililoo bird started its ascent. Enrollment soared. By 1941 there were 370,000 members in 8 U. S. Blue Shield plans. By 1947 there were 1,825,000 members in 18 plans. By 1950, 12,000,000 members in 63 plans!

The figures kept on rising. Coverage was widened. Surgical benefits were broadened. In-hospital medical care was included. Everything went zooming along. The original danger seemed far behind.

Already, though, the phililoo bird was winging toward new danger. While payroll deductions and employer contributions gave Blue Shield further big boosts, such things also meant the beginning of trouble.

What happens when an employer pays for part or all of his employees' insurance? The answer is obvious: He begins to wonder whether he couldn't get it somewhere else for less money.

Take two manufacturers, both of whom contribute to Blue Shield for their workers. Because of the kind of product one man makes, he hires only healthy young men. The other hires women of all ages.

Why Not a Lower Rate?

The first employer, knowing that his plant uses the coverage far less than does the other, is bound to resent having to pay at the same rate. He says to himself: "My workers are healthier. Why can't I find an insurance company that will insure them at a special low rate?"

So he does. His group is segregated from the com-

munity rate. And a commercial insurance company profits at Blue Shield's expense.

That is what has been happening all over the country. Now that the pionecring doctors have made health insurance a going concern, the commercial companies have steppcd into the picture, suddenly eager for vast enrollment.

It's the Money

A vast enrollment of the good risks, that is. Naturally they won't touch the bad risks. After all, commercial carriers exist to make money.

How does what is happening affect you? Well, if enough good risks are pulled away from the Blue plans, the result may be an end to community rate which has to be a combination of good risks and bad. An end to community rate means an end to Blue Shield. And then what?

There are relatively few poor people in this country today. But installment buying, high prices, and the long list of items a family now deems "necessary" have kept poor health-insurance risks numerous. When such persons can no longer have Blue Shield, what will they do for their medical care? They will get it free, of course, whether from us directly, from organized charity, or from government. No matter how it is done, you and I stand to lose. Can we do anything about the situation?

Of course we can. Our problem is how to keep people in the community plans. And we have the answer: *service benefits.* For service benefits are far more attractive to the subscriber than indemnity payments. He wants to be fully covered, if possible, and he knows only too well how very partial indemnity payments can be.

So if the good risk can get service benefits from the community plan, and only from it, he will stick around. It is to his advantage to do so.

In some areas of the South and West, where Blue Shield is on an indemnity basis or has very limited service benefits, the commercial companies have bagged more than half its subscribers. But in the Northeast, where there are a number of good service programs, the Blues still have much larger enrollments than the commercial companies.

The term *good service program* is admittedly a loose one. I cannot define it precisely, because it must vary with each local plan. What is adequate service coverage in my community may not be quite adequate in yours.

But there is one vital test of how any Blue Shield plan measures up: To be adequate today, it must offer service benefits to a range of subscribers including the middle income families.

Whatever the average family income figure may be in any locale, nothing less than that should be the family income ceiling for service benefits. Yet the plans have ceilings that meet this standard in comparatively few places. The family income ceiling is $6,000 in California, the District of Columbia, New York, North Carolina, North Dakota, Oregon, Pennsylvania, and Virginia. In Utah and Washington State it is $7,200; in New Jersey, $7,500.

Those are comfortable figures. But Blue Shield family income ceilings seem inadequate for 1957 incomes in a good many other states. They range downward to $3,600 in Florida, Georgia, Rhode Island, and South Dakota.

A few months back, Elmer Hess told AMA: "Today's professional freedom to be a private practitioner instead of a slave of Government is due solely to Blue Shield."

With a foresighted service program, Blue Shield can continue to shield us from slavery. Otherwise, it will remain a phililoo bird whose eventual crash seems almost certain. More than most physicians realize, the choice is up to us.

The Strengths and Weaknesses of the American Economy

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Los Angeles, California

The theme of your conference is "Economics and Medicine in a Modern Society" and I want to congratulate you for selecting it as your focusing point over the next couple of days. If every industry would analyze itself in such a way, I feel certain a better understanding of both the economy and the industry would result.

My role in your conference is a relatively simple one. All I have to do is to review the behavior pattern of our economy and to isolate and examine with you the more important strengths and weaknesses that presently exist. The discussion will be divided into two parts. The first part will be devoted to a brief analysis of the long run picture while the second part will examine today's and tomorrow's events in the light of the longer run forces in influencing the performance of our economy. Finally, we will evaluate both sets of these forces in terms of the business outlook.

Today's society is so very complex that it is extremely important for every firm to have some type of a picture of the environment in which it will be operating 5, 10 or 15 years from now. Your own organizations will all do a better job of planning future operations if you are familiar with the expected growth pattern of the total economy. What happens to the aggregate will influence what happens to an industry and even determine the final demand for a given firm's products or services.

Future Economic Growth Pattern

Nearly all of us are aware that the long term growth pattern of the American economy is upward. This up-

ward movement is brought about by basic forces that are of an enduring nature, which are likely to continue to operate in spite of what might happen in the short run. In other words, the evidence available leaves little doubt but that the future growth pattern of our economy is expansionary.

Before examining a few of the more important forces, I believe we should make certain we are familiar with the meaning of a growing economy. Usually, when this phrase is used, we assume that a growing economy is one that has an ever higher level of total output. This may be the case, but we should not be deceived into believing that this is necessarily an accurate measure. Economic growth should be measured in dollars with a constant purchasing power and on a per capita basis. If income and output merely keep pace with the anticipated increase in our population over the next few years, total spending will go up, and thus total business activity will increase. However, we will not experience real economic growth. Real per capita income or output must increase at a faster rate than population in order for us to have an increase in our standard of living and thus to experience true growth.

The same type of reasoning should be applied when analyzing the future growth patterns of prepaid medical service plans. If the total outlays for these plans increase at the same rate as our population or the number of families, more people will be served and an expansion in your business will take place. However, you will not be experiencing true growth. To obtain a picture of such growth, total outlays should be compared in terms of a constant dollar and on a per capita or per family basis. It is this type of comparison that really tells you how well you are doing.

What I have to say concerning the fundamental forces and our long term growth pattern is predicated upon two assumptions: The first relates to the willingness of Americans to accept change and the second depends on our ability to keep the international situation under control. Change leads to growth and, if we are to obtain the goal of our potential achievement, we must be ready and willing to accept calculated change in whatever form it might appear. As far as the international situation is concerned, we are all aware that it is possible that war could break out nearly anytime, anywhere. At the present, the near East is the critical zone. Tomorrow it could be elsewhere. Should any of these result in war, the mechanism of our society would be so disrupted that the fundamental forces could become meaningless. The assumption I make with respect to our international relations is that tensions will persist over the next 10 to 15 years, and thus we will not reduce significantly the size of our defense budget. With these assumptions as our base, we can estimate the effect of the fundamental forces and thus project the level of business activity that might be expected in 1965, 1970, or 1975.

Six Economic Factors To Be Considered

In order to project reasonable growth trends of the overall economy, we must analyze the trends of the factors that determine output. There are at least six major economic factors, or variables, that should be considered when estimating the amount of goods and services we can produce in any future period. These are: (1) the growth of our population; (2) the size of our labor force; (3) the level of employment that might be expected; (4) the expected level of unemployment; (5) the annual rate of increase in productivity; and (6) the length of the average work week. These are the variables that make up the "mix" that enable us to achieve a given level of output.

1. *Population Growth*

The story of population is always interesting in any country, but here in the United States it is doubly so because we have more accurate data upon which we can build our future projections than do the majority of the countries of the world. Prior to World War I, we added, each decade, more people to our population than we had in the previous one. This rapid growth resulted from a high birth rate, a declining mortality rate, and a high immigration ratio. During the 20's, we experienced a rapid increase in our population, and then during the 30's, the birth rate dropped and our population increased by only nine million, the smallest for any decade since the civil war. As you will recall, it was during the 30's that the idea was put forth that our population was going to level off and possibly even decline. Then World War II hit us, and this started a new population boom that is still going on. We now number over 170 million—40 million people more than in 1940, and nearly 20 million more than we had in 1950. Currently, we are adding the equivalent of a new state the size of Washington each year. According to the latest estimates of the Bureau of the Census, we may have around 206 to 209 million people by 1970, and as many as 221 million by 1975. The aggregate needs of these people will be great, and if we are to just maintain our present living standard, our total production will have to increase at rapid rates. If we are to experience true economic growth even those rates will have to be increased. The increase in our population remains a strong and dynamic force.

2. *The Labor Force*

About 25 million additional workers entered the nation's labor force between 1920 and 1955, and we now expect that another 25 million will be added by 1975. From now through 1960, the labor force will increase at a relatively slow rate but from 1961 on, it will expand with a vigor believed impossible a few years ago. By 1970, we will have 82 to 85 million persons in our labor force and by 1975, 94 to 97 million. If the armed forces remain around 3 million, the civilian workers will number 79 to 82 million by 1970, and 91 to 94 million by 1975. This compares with a current civilian labor force of 68 million.

3. and 4. *Expected Level of Employment and Unemployment*

The announced goal of our country is to maintain "maximum" levels of production, income, and employment. While no one can be certain of the level of unemployment that should be "fractional," the figure frequently used is 5 per cent. If we assume this is the figure that is politically tolerable, we can estimate the number of people who will be employed in any future period. After making the necessary adjustments for the military and fractional unemployment, we note we will

have to offer jobs to 75 to 78 million by 1970 and 86 to 89 million by 1975.

5. *Annual Rate of Increase in Productivity*

The annual rate of increase in productivity is highly important because the way we obtain total output for any given future period is by multiplying the annual output per workers times the expected number of employed persons. Since World War II, it is estimated that the annual increase in productivity has averaged about 3 per cent. From 1900 to World War II, productivity increased at a rate less than 2 per cent. Bearing these two periods in mind, it seems reasonable to assume output per man hour will increase at about the rate of 2.7 per cent up through 1975. When the billions of dollars that have been poured into research and development for technologic improvements are taken into account, this figure of 2.7 per cent seems very conservative.

6. *Length of Average Work Week*

As our production increases, there is no reason why we should not expect a decrease in the number of hours each person will work. Between 1920 and 1956, the average hours worked in manufacturing fell from approximately 48 hours to 40 hours. The same type of decline has occurred in agriculture and other industries. Average hours vary in different types of work and with the level of business activity, but I believe the average work week for all workers will be in the neighborhood of 37 to 38 hours by 1970 and 35 to 36 hours by 1975.

Projecting Trends Shows Startling Results

Now when we put these strong forces together and project the trends found in each, we arrive at some rather startling results. By 1965, our economy will be capable of producing approximately $562 billion of newly produced goods and services; by 1970, $680 billion; and by 1975, $812 billion, nearly twice the $414 billion produced in 1956. When these data are compared on a per capita basis, they indicate that the long term growth pattern of our society is extremely expansionary and thus encouraging to business interested in planning for future production and sales.

With this rather optimistic long range picture before us, it is appropriate to examine the strengths and weaknesses we find in our day-by-day operations—the short run. Such strengths and weaknesses are actually forces that will have an influence upon all expenditures, including medical services over the next six months to a year.

It should be clear that as we move toward our long run goals, the road we travel will not be perfectly straight nor will it be free of all hazards. While our modern society is really a "mixed society," it remains basically a free enterprise society and, as long as this is so we can expect, and I believe we want, some fluctuations in total business activity. The available evidence indicates a steady, uninterrupted expansion can only be accomplished within the framework of an inflationary economy, or one that is completely controlled. Although there is disagreement over the social cost of creeping inflation, nearly everyone is anxious to avoid a regimented state. I believe that our society is strengthened more by a periodic downturn in business activity, of minor proportions, than by a gradual, continuous insidious erosion of the purchasing power of the dollar.

Forces Influencing The Stock Market

Before discussing the various spending segments of our society, a word about the recent behavior of the stock market is in order. In the eyes of many, this highlights the important weaknesses of our economy and, therefore, should be reviewed in a talk of this nature.

An examination of the historical data collected and analyzed on the behavior of the stock market tells us that stock market prices usually precede an upturn or a downturn in general business activity. While the record of this indicator is not perfect, it has been classified as a so-called leader in business cycle analysis and deserves some attention. There is no single reason why stock prices have been tumbling. Several forces have been working simultaneously and together they account for the almost uninterrupted decline in stock prices since last July. A few of the forces having an influence on the stock market are:

1. Higher interest rates. Investors find it less risky and nearly as profitable to switch out of stock equities into bonds or other forms of saving.

2. The decline in corporate profits. While this decline has been small, it has been rather steady since the 4th quarter of 1956. Although dividend payments have remained about the same, retained earnings have been reduced.

3. The decline in new orders of manufactured goods. This decline has occurred with no perceptible decrease in production. The result has been a decline of unfilled orders of corporations and thus some concern on the part of the investors.

4. Concern over the international situation. In the eyes of many, our foreign relations have deteriorated and thus, the danger of war is more imminent.

5. Sputnik itself should not be overlooked as a factor bringing instability to the stock market. This coup, accomplished by the Russians, has placed doubt in the minds of many investors. Doubt usually leads to caution and conservatism as far as the stock market is concerned.

6. Concern over the cutback in defense spending. Much publicity has been given to lay-offs in defense plants and the expected reduction in military expenditures. Such publicity dampens the enthusiasm of investors. The possibility of an increase in military spending has just developed during the past week.

7. The rate of increase in capital expenditures has declined. The leveling off of capital expenditures reduces the need for new stock issues and this acts as a depressant on the market.

8. Psychologic reactions to declining stock prices. As stock prices decline, recession psychology spreads and the effect becomes cumulative and prices drop still more. Fearing further decline, investors sell to either minimize losses or, if they had purchased at previous lows, to get out with some profit before all their gains are eliminated.

While it is unlikely that any of the above forces would be of sufficient strength to carry the market to lower levels, taken together they do give us an answer as to why the market has been moving downward over the past three months.

Usually, when the stock market behaves in such a manner, more fundamental weaknesses are to be found. What is the situation as of now and what are the possibilities over the next six months to a year? Whether our strengths exceed our weaknesses will depend upon what happens to spending—spending by businesses, governments, and consumers.

Business Spending

Expenditures by businesses for new plant and equipment have peaked and are on the decline. These outlays have increased approximately 33 per cent since 1955, and we have evidence they will drop slightly in the fourth quarter of this year. Recent surveys of business plans for 1958 indicate the reduction in capital spending is likely to continue well into next year. The reason for the decline in this type of spending is tied in closely with the squeeze on profits which has been occurring in most industries along with the developing of excess capacity in some lines. According to the study of the Securities and Exchange Commission and the Department of Commerce, the expected decline in capital spending is quite general. The only two major industries planning to increase capital outlays during the last quarter of this year are public utilities and non-durable manufacturing. In total, expenditures of this nature may be reduced as much as 5 to 7 per cent next year—a significant reduction in the light of the importance of this type of spending. Surveys by private business advisory services and by business publications support this view and, thus point up an important weakness in the short run economic picture.

Another area of business spending that plays quite an important role in determining the level of activity is the amount spent to build up inventories. We have been producing more than we have been consuming ever since the beginning of 1955 and, as a result, total inventories currently stand at over $91 billion, an all time high. Although sales have increased, they have not been able to keep pace with the inventory build-up and with the businessman concerned over future sales the way he is, I cannot help but conclude that purchasing for inventory purposes will slacken off in the months just ahead. If inventories do decline or if the rate of increase falls off, this will become another weakness in our total spending picture.

On balance, in spite of the optimistic long range picture for increased business activity, I believe business spending will be reduced by 2 to 3 billion dollars during 1958. The tightened monetary and credit conditions and the lower profit margins are discouraging to business and many capital expansion plans are being abandoned or postponed. Of course if the government should increase its outlays for defense purposes, this tendency might be reversed in short order.

Government Spending

While we have read and heard a great deal about the expected reduction in Federal Government expenditures, total outlays by all levels of government are likely to increase in 1958. During the current year, these expenditures will probably average out to about $86 billion and will end the year at a rate around $88 billion. I expect that total government outlays will approximate $90 billion during 1958. The two factors that lead me to this conclusion are: first, the cuts we have heard about are cuts in obligational authority, not in spending. Spending by the Federal Government will be up to $2.5 to $3.0 billion in 1958. This will be brought about primarily by increases in outlays for interest payments on the government debt, the new housing program, higher retirement provisions for both civilian and military employees and increased outlays to conduct our international affairs. Second, a rise of about an equal amount can be expected in the expenditures of the states and local governments on roads, schools and community facilities. All told, government spending remains a very positive force influencing the level of employment. While the rate of increase in such spending is likely to decline, falling from the 8 per cent increase in 1957 to about one-half that amount in 1958, the absolute outlays are likely to up by about $4 billion.

Consumer Spending

What happens to consumer spending will depend upon what happens to consumer income. At the present, there are some indications that incomes are declining slightly. During September, wage and salary disbursements dropped approximately one-half billion dollars. While the data are not, as yet, available for October, I believe the record will show that a similar decline occurred. Should this downward drift in incomes continue, we will be in for a more stringent 1958 than has been forecast by most observers. The effect of a decrease in the rate of spending by business for plant and equipment and by the Federal Government is just beginning to be reflected in lower incomes of our wage and salary workers. Unless these expenditures are stepped up, it is likely the decrease will have a multiplying effect and 1958 will see incomes falling below this year's peak.

Consumer expenditures amount to about 64 per cent of the total spending of our economy and are usually classified into the categories of housing, durable goods, non-durable goods and services.

Expenditures by consumers for home construction have slumped for the last two years. The peak was reached in 1955 when $16.6 billion were spent on residential non-farm housing. In 1956, this sum fell to $15.3 billion and this year, it will average out to around $14 billion. This slump has been the result of rising construction costs, more expensive mortgage money, and a declining number of family formations. As has been pointed out, the World War II babies will not begin to have an impact upon our adult markets until sometime after 1960. Prior to that time, the basic demand for housing will remain relatively low, and it will only be through the stimulus of easier terms and lower prices that more homes will be built. Total outlays for homes during 1958 are apt to remain somewhere around the 1957 level with the current trend toward larger homes and higher prices continuing.

The slow-down in the rate of increase in consumer income is apt to have the greatest impact on the sales of consumer durable goods such as automobiles and appliances.

Automobile sales account for nearly 50 per cent of all consumer durable goods purchases. Sales this year will probably exceed 6 million which is well above the 1956

figure of 5.8 million. What happens in 1958 will largely depend upon the reception consumers give the new models that are just now being introduced. I believe consumers are not in a mood to buy the new cars at a rate anything like they did in 1955. Sales will probably equal or even exceed the 1957 level but, unless manufacturers cut prices, they will not be high enough to equal the 1955 record. Reports on sporadic unemployment and high prices have been enough to convince many consumers this is not a good time to buy. The most recent surveys of the Survey Research Center of the University of Michigan support this point of view and indicate consumers will hold off any purchases requiring large cash outlays or loans.

Sales of other consumer durables such as TV sets, radios, refrigerators, and washing machines are not apt to increase greatly over the next year. Credit is available for such purposes, but the problem remains one of stimulating the purchaser. Prices are high and the feeling of uncertainty is in the air. The desire to buy is not present and unless action is taken to restore some of the confidence that has been lost, 1958 will see concerns more actively competing for the trade dollar. Total outlays by consumers for durable goods will approximate $46 billion this year. While this is above the 1956 figure, it will not equal the 1955 level. In spite of the fact that credit is available and many of the purchases made in 1955 will be paid off in 1958, I believe the mood of consumers will prevent durable sales from exceeding the $35.6 billion of 1955.

Consumer spending on non-durable goods and services may continue to increase during 1958. So far this year, they are running ahead of 1956 by about 5 to 7 per cent and it has been this increase that has offset the lagging sales of consumer durables. Studies show that consumers do have money and I believe 1958 will see additional increases in sales of non-essentials the same as I expect outlays to go up for food, clothing and services.

Conclusion

As I evaluate the strengths and weaknesses in the total economy, I believe the prospects are for a high level of activity during 1958. However, the short run forces working are very likely to hold aggregate spending below the 1957 inflationary level.

We have pointed out that the long term forces are strong and point toward an economy of nearly twice our current output by 1975. This does not mean, however, that every year will be always higher than the one that precedes it. It seems likely that the continuous rise in prices will be stopped during the latter months of 1957. We have ample supplies of goods and with profit margins on the decline, business competition for the consumer dollar will become more vigorous. Unless the government takes some action to increase its own outlays over and above its currently planned expenditures or unless businesses spend more for investment purposes than is currently planned, personal incomes are likely to decline and unemployment during 1958 is apt to show a slight increase. We have been operating with an economy that is more than fully employed and, as a consequence, prices have been rising quite steadily since April 1956. If we are to really lick inflation and enjoy price stability, it seems to me we want to experience periods of less than over-full employment. I believe 1958 is very apt to be one of these periods.

In my opinion, the type of adjustment I see for the coming months is the type a free enterprise economy must experience if it is to remain really healthy and, at the same time, free.

The Physician—Then and Now

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It has often been said, "Better to remain silent and be thought a fool, than to speak and remove all doubt." Were I to proceed with a discussion of national economics, world affairs or sociologic principles, I am sure any semblance of doubt you might have would be promptly removed. Far better trained and more capable individuals in these fields have spoken to you today and will continue tomorrow.

The effects of economic, sociologic and technologic changes in recent years have been great upon the profession of medicine. I would call to your minds the famous painting by Sir Luke Field entitled, "The Doctor." This work is familiar to all of you and I am sure certain conclusions have been drawn from having observed it. You will recall the attendance of the physician upon the child of a family, apparently not well endowed with material goods. The lack of carpet on the floor, the formation of a bed for the child from dissimilar chairs, and the attire of the anxious parents in the background lend great appeal to the message contained in the picture. The child apparently is seriously ill, at least sufficiently so to warrant the physician's attendance in the dead of night. The pallor of the child would speak for serious illness and the obvious concern on the face of the physician would lend further support to this assumption. It is difficult to determine from the face of the physician whether what we see there is sadness, perplexity, or resignation. We are assured, however, from his appearance, that there is dedication of purpose in his attendance on this patient, regardless of his limitations in diagnosis and treatment. The withdrawal of the parents to the background, consoling each other, and placing in the physician's care their most prized possession, the child, speaks of their trust and respect for this member of the profession, in spite of the fact that his chief assets are those of sympathetic understanding and availability.

A present-day version of this famous painting might

show the child between starched sheets in the ward of a modern charity hospital. The physician would not be seated pensively at the bedside; rather, a nurse at the desk in the hall would be in attendance. An intern or resident might be standing by viewing essential laboratory studies; but the physician's aura of inate dignity could not be made such an apparent part of the present-day picture. In the eyes of his patients, the modern physician often appears to have lost those virtues of sympathetic understanding and availability for which his predecessor was so highly esteemed.

Why Modern Physician Has Lost Respect

Why is it that our modern physician appears to have lost, at least in part, the admiration and respect of those who come under his care? Certainly a myriad of possible answers come to mind. I would mention only a few.

Twenty-five or thirty years ago, less than 15 per cent of our adult population were high school graduates. Today, that figure aproaches 50 per cent. With a higher level of public education, and the popularity of medical articles in leisure time magazines, medical advances have become common knowledge. It is entirely understandable that the public, knowing of modern medicine's accomplishments, demands their application to illness even though ability to pay may not be great. The average layman has, at least in his own opinion, acquired sufficient information to justify critical appraisal of his medical care. Such an attitude would rarely have occurred in the practice of the doctor depicted by Sir Luke Field. Few of his patients had the education and even fewer available information with which to form a basis for critical evaluation. The physician now may find himself at a loss to answer in a satisfactory manner, questions proposed by his patient. And, unsatisfactory or incomplete answers are less readily accepted today. With the advent of fine roads and rapid transportation, medical centers are available to almost all parts of our country. The ready availability of the best facilities and techniques of medical science have tended to lower the stature of the family doctor. The advancements of medical science itself have created a problem in patient-physician relationships. The patient's family is no longer quite so ready to accept the inevitable and, again, the physician himself is criticized for failures in matters beyond his control. Demotion of the physician from his previous unassailable position has made his footing less secure and, in many instances, made the physician feel defensive in his relationship with the patient. This, in turn, contributes to the chain of lack of understanding. The physician knows the high quality of the care he is offering and, understandably resents his patient's lack of appreciation of this, not only during illness, but at the time a bill is submitted.

The high cost of medical care has been interpreted by the public to mean the high cost of physician's care. Only the rare occasions when an excessive fee is charged become public knowledge. The many expressions of gratitude for consideration of their economic state by patients to their physician are rarely publicized. A number of years ago, much of the practice of medicine was carried out in rural circumstances where the physician knew well the economic and social background of all his patients. He was called upon to attend and answered that call, regardles of ability to pay. Then, taxes on individuals were not great and the welfare state was not yet upon us. Instead of large charity hospitals with high taxes supporting them, and in the place of Social Security benefits, the physician was obligated to take care of both the indigent and the wealthy. Both he and his patients recognized this and those individuals who could pay, and particularly those who could pay well, were not so burdened with taxation but that they accepted an increased charge for his services in order to compensate him for those members of their community who were unable to pay him at all. A wide divergence of fees often existed for similar services, based entirely on the ability of the individual to pay. This was a form of medical care for the indigent at the local level.

In more recent years, many of these services for the indigent are tax supported. Some are supported by charity fund drives. In view of the rather large contributions made through taxation and charitable gifts by the well-to-do, it is small wonder that they have begun to resent extreme variations in charges by the profession. On the other hand, there are fewer of our population now who are unable to pay a modest or even reasonable fee for the doctor's services. I would not maintain by these statements that a fixed fee schedule in the practice of medicine is a desirable entity. I would, however, point out that over the past 20 years the charges a doctor makes for his services have gradually become more uniform although they are frequently reduced for the individual who can pay little, and increased moderately for that individual who can afford it. Little variation in fees charged for the office services of general practitioners, internists, and pediatricians, now exist.

Practice of Medicine Has Changed Through the Years

Even for the seriously ill the advent of relative value fee schedules, Blue Shield fee schedules approved by members of the profession, and reimbursement schedules provided by the commercial insurance companies, have all tended to result in some standardization of fees. The physician, when dealing with an exceptional case, either because of the magnitude of the services rendered, or because of the individual's ability to pay, sometimes has strong objections to the results of these standardizing effects.

Other aspects of the practice of medicine have changed through the years. Referring again to "The Doctor," we note that attendance is being provided for serious illness in the home. Improved transportation, increased prosperity, and other factors have made this a comparatively unusual situation today. We have seen the growth of a multitude of hospitals in all sections of our country in which proper care of the seriously ill can be conducted. The nature of hospitals has changed. Twelve years ago, when I began the practice of medicine, it was not unusual to find an elderly patient who, even though critically ill, refused hospitalization. Their concept of the hospital was still that of a place in which people could die. Such an attitude today is exceedingly rare. That such an attitude ever existed indicates the change that has taken place in our medical institutions. Advances in hospital care, desirable as they may be, have also been the source of changes, not always readily accepted by the practicing physician. The time appears to have passed when wishes of the medical staff are granted without question. Again, the advent of expensive equipment,

the coming of a high level of prosperity, increased labor costs, and the demand for increased hospital beds have placed the hospital trustees in a precarious economic position. To help them solve their problems, there has been developed the trained hospital administrator. His responsibility, basically, is to the trustees of the hospital. His job is to operate the institution on as nearly an economically sound basis as is possible. Often, this leaves little room for consideration of medical staff requests. The physician finds it difficult to understand the intervention of dollar economy where the care of this patient is involved. Although the basic goals are the same, divergence of views has inevitably led to conflict in many areas. The mutual dependence of hospital and doctor is too often forgotten. The need for hospital funds has led to many practices repugnant to some physicians. Fund drives are almost invariably begun with a high assessment on the individual staff members. Whether or not coercion is intended, its possibility is apparent to the physician. Hospitals left with many unpaid accounts have turned to collection agency methods of solving this problem. Earlier and more vigorous collections by the hospital may deplete the patient's funds leaving little or nothing to reimburse the doctor for his efforts and the resentment of the patient for having to pay a bill which he did not wish to incur in the first place is often turned toward his doctor. In such circumstances, the physician feels obligated to accept deferred or token payment under the guise of good public relations.

In the large hospital, the myriad of departments have often led to inefficiency in coordination to the detriment of the patient and the anxiety of the physician. The doctor whose office revolves around him as a central figure may often find little of this attitude while caring for his hospitalized patients. He has neither time nor understanding with which to meet these frustrations when they occur. In this area, as in his relationship with the public, prosperity, technologic advances, and sociologic change have placed the physician again in a defensive position.

Superficially, the medical profession has appeared to keep pace with inflationary times in so far as individual income is concerned. In the vast majority of instances this does not reflect a substantial increase in fees. It does reflect an overall increase in demand for service and an increase in the average individual's ability to pay the physician's bill.

This increased demand of our public for more medical care, for the application now of medical advances known to them, is well documented and is regularly felt in the halls of Congress. The demand is apparent in the numerous bills dealing with the health and welfare of the voting public. The average doctor has little knowledge of the tremendous number of bills considered each year by committees of our governing bodies. Any one of these, if successfully sponsored, would further propel our profession along the road to socialization. Contrary to popular belief, it has apparently made little difference which party is in power.

Formation of Blue Shield Plans

Fifteen years ago a system of government sponsored involuntary health insurance seemed a real threat to each practitioner. Fear of this threat and a real desire on the part of a few, far-sighted physicians to provide middle income groups with a means of pre-paying medical care, led to the formation of Blue Shield Plans throughout the country. With the passage of time and the advent of a new generation of young doctors, awareness of the threat of government intervention in medicine has been dulled. Prosperity has eliminated some of the necessity of assuring the physician of the collection of his fees and to some physicians, that same prosperity has eliminated the need for prepaid health insurance. Rapid growth of Blue Shield plans, attesting to public demand, has necessitated many changes in the original form of plan operations. It is often impossible to keep the participating physician well-informed of changes as they occur and the reasons for their occurrence. These frequently have the appearance of encroachment on his individuality and the free practice of medicine. All too often, Blue Shield gives the superficial appearance of being an interferring third party in medical practice rather than a helpful adjunct of the medical profession. Little time is available to either Blue Shield or the physician with which to further professional understanding of changes as they occur.

It is essential for the welfare of the profession that voluntary, profession-sponsored, prepaid medical care plans continue to expand. Personal prejudices must be put aside. In another part of this country, I recently had occasion to meet with the Board of Directors of a state-wide Blue Shield Plan. The chief problem at this meeting was the comparatively selfish approach of one specialty group in its attitude toward Blue Shield. Feeling that its services were under-valued by the fee schedule, this group appeared determined to improve its own economic position or cause hardship for the entire Plan itself. Such attitudes are not consistent with the best interests of the entire profession. Efforts to utilize Blue Shield Plans for the furtherance of the economic desires of small portions of the profession must be met with firm resistance. Such changes must come about through public education and not behind the skirts of an essential facet of the practice of medicine.

How does the doctor's attitude toward Blue Shield compare with that he holds toward the commercial insurance companies? Unfortunately, through lack of proper information, too many of the profession are not aware that a difference between the two does exist. Too often, the physician sees only a high-grade commercial contract carrying a generous fee schedule and is unaware that such a contract is not available to the general public. He wonders why Blue Shield cannot equal these offerings. He hears complaints from patients when additional charges above the Blue Shield allowance are made. Seldom is a complaint registered from a patient who carries a commercial contract, for in this instance the patient does not anticipate that his bill will be paid in full. Through lack of knowledge and a narrow exposure, the doctor's feelings toward Blue Shield are often warped and in the wrong direction. Selection of risks, limitation of fee schedules and many other commercial insurance company practices are not known to him. It is imperative that as many members of the profession as possible be drawn into the operations of Blue Shield Plans for in his way, better understanding of insurance principles, basic aims and other problems may be gained. The young physician is comparatively unaware of the

threat to the practice of medicine by the intervention of other third parties. The vast majority of these men, differing from their predecessors of 15 or 20 years ago, are married and now have families. They feel a responsibility to spend time with these families and are reluctant to share time away from their medical practice with such institutions as the County Medical Society, Blue Shield, or civic organizations. Yet, only through participation in such bodies by these young men can the welfare of medicine in the future be assured.

Recent years have seen the advent of many innovations in the practice of medicine. For the most part, these have had little influence on much of the medical profession. The development of the clinic as a means of medical practice has affected small segments of the profession surrounding such installations and in these areas I am sure resentment can be detected. Yet, such institutions have not caused the layman to abandon his family physician. Group practices of both mixed and specialty nature have had similar effects, as they have developed. More and more, new and different third parties seem to interpose their reams of questionnaires between the patient and his doctor. Closed panel practices, sponsored by Unions or employers, have drawn little attention except in the areas in which they operate. We must face the fact that the individual physician is concerned primarily with the conduct of his practice and the care of his patients. In this day and age, that is a full-time job leaving little opportunity for consideration of outside influence, except, when they affect that practice. Perhaps my experience in this respect is somewhat neglected by virtue of my Midwestern location. Most of these practices, that is, the closed panel, the union and employer, third-party intervention, have not become large factors in this area. An exception to this lies in that most recent development of governmental medicine, Medicare. Having been in effect for approximately a year, the individual physician's exposure to such cases has been so small in many areas as to attract little of his attention. His interest in these matters is largely a philosophical one and among the younger members of the profession, a wait-and-see attitude seems prevalent.

Resentment of Loss of Professional Art

To return to "The Doctor" of Sir Luke Field, one might envy certain aspects of his practice of medicine. His services frequently were more artful than scientific. His isolation gave him autonomy and enhanced respect from the community. He was not troubled with multitudes of insurance forms for every hospitalization. In fact, hospitalizations were few. His economic reward varied according to the economic level of the community he served but was consistently high within that community. When his patient required hospitalization, all too often it was because the end was near and families had to be relieved of their burdens. In the hospital, he was not so sorely pressed by the dollar-conscious hospital administrator. Prepaid medical care was little known and insurance forms or medical-legal reports occupied little or none of his time. He was entitled to retain a vast majority of his earnings to provide for his own security. Cradle to grave protection had not influenced his patients.

These are laudible and desirable assets but I doubt that many of us would return to those times. None would desire to sit by the side of a sick child without the aid of modern antibiotics, diagnostic tools, or other components of modern medicine. Medical advances, as well as general social-economic advances, have produced changes in the practice of medicine. Many of these changes have made life more complex for the physician and his patient but many of them have made life continue. It seems impossible to me that old attitudes, old prejudices, and old opinions can successfully persist in the face of such change; yet, much of the public and the profession too, resent the loss of professional art though they would not relinquish the scientific gains.

The Doctor of the portrait is gone. His humility and sympathy remain with the profession. Pressed for time by patients, his community, hospitals, insurance forms, and a search for security for his family, these qualities are often less apparent to the public.

Conclusions

It is possible that some of these remarks might not bear the test of statistical analysis and close scrutiny. They represent my opinions, formulated from observing my colleagues in the practice of medicine and from my own relationship with patients I serve. From these observations, however, I have drawn certain conclusions. These might be enumerated as follows:

1. Changes in the economic practice of medicine have occurred. For the most part, they have occurred as the result of extraneous forces upon that practice rather than as a result of physicians' efforts to adapt to changing times. They have, for the most part, been forced upon that practice rather than as a result of physicians' efforts to adapt to changing times. They have, for the most part, been forced upon the profession rather than sponsored by the profession. For this reason, these changes sometimes are not well-received by the physician.

2. The practice of medicine has now become involved with a multitude of institutions and individuals including federal and local governments, unions, employers, commercial and profession-sponsored insurance plans, and many others. In the course of his training, the physician is not prepared to understand the effect of such institutions. They seem to interfere with his practice of medicine and, as a result, are sometimes condemned by him.

3. The practicing physician often has little knowledge concerning the demands of the public for means of insuring their medical care. Lack of knowledge of these demands makes him suspect those individuals and institutions who seek to supply means to satisfy these demands for the public. Those physicians, particularly who have entered in the practice of medicine in recent years, are quite unaware of the service rendered by Blue Shield in the prevention of a system of government medicine. These younger individuals, many times, suspect that perhaps the danger did not exist in the first place.

4. Finally, most physicians seem to wish to be left alone to care for their patients. They do not enjoy or appreciate questionnaires, insurance reports, medical-legal reports and other time-consuming, nuisance factors in the practice of medicine. The training of the physician leaves little opportunity for the installation of knowledge which would lead to interest in civic affairs. Even the profession's own organizations suffer from the physician's lack of time and interest for matters not pertaining directly to the care of his patients.

Remarks of Mr. Charles A. Sprague

EDITOR AND PUBLISHER
The Oregon Statesman
Salem, Oregon

I am not sure that a newspaperman really has any place in an organization composed very largely of doctors because, publicity and medicine have no affinity for each other, so we have been instructed time and time again.

Nevertheless, I have yielded to your appeal and am going to talk to you as best I can on this subject of Health and Welfare. That subject reflects a very close unity—health and welfare. Human welfare is in a large degree dependent upon health. And surely the great advance in the welfare of the people has come from better health as a product of better medical care. This progress is one of the most notable achievements of our age.

I shall not try to quote statistics to you, but merely mention some areas of progress such as the reduction in infant and maternal mortality, the growing eradication of infectious diseases, the better record in surgery, the shortening of the period of hospitalization. New techniques, new drugs like the antibiotics, better trained personnel—all have contributed to this rapid march of progress. We may not have the earth satellite, but we have the Salk vaccine. The West may be tardy in its missile development, but it was first with sulfa drugs, insulin, x-rays—made to save lives, not to destroy them.

Health has become almost a religion of the people. They pour millions into gifts to combat diseases, and establishment of medical foundations is a favorite indulgence for the very wealthy.

Most of these forward steps came as a result of scientific research. Chemists and pathologists working in laboratories have made life-saving discoveries. But it is the men actually and actively engaged in medical practice who have applied them. To make sure that proven formulas and methods are brought to the attention of those in practice, clinics are held and refresher courses offered. By this means and through professional literature the doctor caring for patients is brought abreast of progress. The one who is indifferent lags behind and soon finds he is left in the eddy while other and more progressive men in medicine move forward.

Doctors Fail in Field of Public Relations

But while the medical profession has thus been seen to be fully alert to progress in its own field, ready, with discretion, to try the new and to accept it if the trial justfiies, it seems to me as a lay observer that the medical profession has let itself be strangely isolated from currents of thought and actions in other fields in social, political and economic affairs.

If these remarks are directed, or appear to be directed, more to the doctors in this audience rather than others such as management representatives, it is because the latter, thanks to the New Deal and labor unions, have been pretty well house-broken by this time.

Whether this lag with the medical profession is due to their concentration during medical training and the constant narrowing of the range of their study, or to the insulation which comes with private practice, I shall not attempt to say. Doctors are pretty well out of the stream of the business world with their workday—and night—contacts confined largely to the ill and their relatives, and to nurses and staff. And so the conspicuous failure of the medical profession has been in the field of public relations. The result was a professional introversion, or to change the figure, a myopia which reacted to injure the standing of the profession in the eyes of the public.

Medical Societies Resisted Change

Thus there developed in medical societies a stiff resistance to deviation from traditional procedures in the practice of medicine. A renegade from the old code would be subject to harsh discipline which served usually to hold him in line. The medical profession seemed oblivious to social and economic changes which were having an impact on political thought and action. It was not until the threat of socialized medicine became ominous that the profesion, as a profession, bowed in measure at least to the pressures of the times.

This professional conservatism found expression not only within the medical organizations on matters relating to medical practice, it sometimes linked individual doctors with extreme political reaction.

I suspect that doctors were as big purchasers of John Flynn's book, The Road Ahead, for mass distribution as any group. I know that Oregon was well flooded with these books from such sources. I pride myself on being something of a conservative, still registered Republican, but this book was so extreme in its reaction against the prevailing political trends as to damage its own cause. Its wide distribution by doctors was to me just another proof of what suckers many highly intelligent men may be. And corporation executives, I found, are often fully as gullible in the support of lost causes.

It was this joining of hands against any change which brought medical societies into disrepute. The AMA, as you know, was accused of being the tightest labor union of them all. A doctor with a Cadillac provoked resentful comment about the high cost of medical care, although no one thought to criticize a gyppo logger, suddenly grown affluent enough to acquire a car of similar make. On popular vote the medical profession probably still would rank higher than the legal profession, but the margin has narrowed.

Doctors Must Adapt to New Era

What doctors have had to learn—and some have not learned yet—is that we are living in a new society to which they must adapt themselves and their policies. We are in an era of what I call socialization, which is not to be confused with socialism. Socialism is where the government steps in and runs the show. Society though is becoming more fully organized, and socializa-

tion reflects the tendency of groups to organize themselves for their own interests.

The shift from rural living on farms largely self-contained, and from business independently owned and operated to urban and corporate organizatoin has forced this socialization, which is simply the organization of individuals with similar interests to promote their common welfare. That may be a business corporation, a labor union, a trade association—or a medical society. Your medical society has definite purposes, and you invoke its power to represent you in matters with which you are concerned.

Doctors are apt to regard the medical society as strictly professional, the conservator of a great inheritance and guardian of the nation's health. It is that; but the public also regards your society as another self-interest group, concerned with private economics as much as with medicine. You have a perfect right to use your society to protect your economic welfare, but do not gloss that phase of it with the halo of Pythagoras.

Two Socializing Trends To Reckon With

There are two socializing trends which you have to reckon with; one is the socializing of disasters. This is old, a development of the Tontine Principle, expressed now vigorously in fire, life and casualty insurance. It involves the spreading of risks according to the law of probabilities and the provision of a reserve pool to meet emergencies and losses. Sickness, in view of the cost of major illnesses, rates as a family disaster. And so it was natural for the insurance idea to spread to sickness and accident. The increase in the number of wage and salary workers made practical the collection of insurance fees at regular intervals, and when the payroll deduction plan was thought of the prepayment plan then became feasible.

I congratulate the doctors of Oregon for being among the earliest in the medical profession to observe the trend and to try to travel with it. It is a matter of satisfaction to me personally that our business was one of the earliest to become affiliated with the local Physicians and Surgeons Medical Service in Salem.

It is true that doctors were pushed into such organizations by the competition of privately-owned and managed groups of medical care practitioners. But these doctors in Salem and elsewhere were real pioneers. They had to tread the path of society approval—Medical Society approval—and still have enough of a sales appeal to interest consumer groups. The Oregon success has encouraged similar efforts elsewhere.

Another of the trends which must be recognized is group dealing. Prepaid medical plans are offered first to large groups. Medical groups now must deal with other groups: hospital associations for instance, and with the sponsors of other group health plans, private insurance and union-sponsored health and welfare plans. Doctors certainly have a stake in the greatly expanded sale of health insurance by private insurers.

This expansion in private insurance is of mixed value, however. If misunderstandings arise from overselling of solicitors, or clouding of exclusions, or limitations in these insurance contracts, then prepaid insurance of that character suffers and doctors often get blamed unjustly.

Now I understand the consuming fear over socialized medicine. Fortunately, that is not an immediate prospect. The British experience chilled its popularity, but the idea is not dead and will be revived under a favorable climate. Doctors' security from the coils of government bureaucracy depends in great degree on how well they meet the health needs of the people in terms of today's social and economic conditions. And certainly, for my part, I approve of the conditions which Dr. Miller mentioned: namely, free choice of physician, and the doctor's choice of the character of treatment.

High Cost of Medical Care

You are aware I know of the complaints about the high cost of medical care. On analysis, this is not the ogre which is depicted in popular literature. The high cost of medical care stems in large part from the greater consumption of medical and hospital attention. Babies are not born in homes now but in hospitals. Alas, we will have no more log cabin presidents. Though homes are much better prepared for care of an ill person, the sick are promptly rushed off to hospitals and that incurs a new and very substantial expense. In fact, the increased cost of hospitalization adds greatly to the rise in the cost of medical care. Today more technical services are furnished: x-rays, physiotherapy and so forth at cost to the patient. Many of the new drugs seem frightfully expensive.

What is ignored in complaints about the cost of medical care is that health of the public is greatly improved in consequence. Lives are saved; illnesses are shortened; and the fact remains, according to the statisticians, that the outlay for medical care—doctors, drugs, hospitals—runs at a fairly constant ratio of 5 per cent of the national income. One difficulty is that the burden is extremely heavy sometimes on individual families for prolonged treatment and hospitalization. Expensive drugs or surgery bring a staggering pile-up of bills. For the very poor, public welfare extends a hand. It is the not-so-well-to-do who really are hard hit then. For such families prepaid health insurance comes as a life-saver. What is important, however, is that the purchaser of such insurance know definitely what he is buying. In that respect those prepaid plans which offer definite services rather than specific indemnities by categories should have a marked advantage.

Lower Cost by Open Panel Practice

But cannot something be done to lower the cost of medical service without lowering its quality? One suggestion is made such as the organization of group practice with general practitioners and specialists operating as a unit, providing diagnosis and treatment within a single organization with a definite purpose of reducing the cost to the patient. I am not referring to what are called closed panels, but to the open practice.

I know that much store is set on the confidence of the patient in his physician, and that seems to encourage strict individualism in practice. But let me say that there is considerable myth in that. Actually, the patient has only limited confidence in his family doctor, as is proven by this fact that unless the doctor's prescription brings fairly early relief the patient calls for a specialist, and he shows a lack of confidence in his doctor, or he goes to another doctor. And specialists are chosen chiefly on the recommendations of the general practitioner. Many a patient undergoes surgery at the hands of a doctor who has been selected for him, not chosen by him.

And so group practice is not invalidated by the factor of a free choice of a doctor.

Here at least is an opportunity for further experimentation.

Hope for Growth in Awareness

Now if I have seemed critical of the medical profession in this discourse, let me assure you that I am not hostile to it. In fact when it comes to the practice of medicine and surgery, I am strictly orthodox in my loyalty and patronage. I have a great respect for those who engage in the practice, though I confess at times (although perhaps it is an indication of advancing age), that I fear the commercial side gets over-emphasis and the deeper function of ministering to human need is diminished, particularly among the younger practitioners. It should always be a profession of service with financial reward as secondary. Likewise, administrators of prepayment plans must always keep the service idea paramount and not be overborne by concern over budget and balances.

It is my earnest hope that the medical profession will grow in awareness of the conditions of this modern age, and without sacrifice of the essentials of the profession which are in their custody, will make such adaptations as will best serve the health and welfare of the American public, joining hands with other groups for conserving the health of the people.

The Relative Value Fee Schedule

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It was with a certain amount of misgiving on my part that I accepted your kind invitation to address the Western Conference of Prepaid Medical Plans on the subject of medical fee schedules. After many years of hard work on this particular subject it is my firm conviction that it is a complete and total impossibility to create any fee schedule for payment of medical services. On the other hand, it is completely self evident that if prepaid medical insurance is to be offered in any form, there must by correlary exist a system under which payment for individual service on the part of the participating physician must be pre-determined. Whether physicians approve or disapprove, therefore, in principle, it remains a fact that we are going to exist and work with a fee scedule from this point on.

It would be trite in addressing a group like this to review the changing social trends which have created this situation in the United States and throughout the world. I do not see how it is possible ever to anticipate any radical revision, or alteration, in this shifting social attitude. It is imperative, on the other hand, that we make every effort possible to guide these social trends correctly towards the best welfare of the public and the individual patient involved. Let me assure you that there was no selfish motive on the part of any member of the committee which produced the Relative Value Schedule for the California Medical Association published and adopted by the Council on February 12, 1956. There was a background of many, many years of intense effort and serious thought behind that work.

The objective of the commitee on fees of the California Medical Association which produced the Relative Value Schedule was to establish general principles for the formulation of proper fee schedules. The committee determined that four basic elements must be included in such general principles.

Uniform Nomenclature

A single description of medical services that should become common to all fee schedules was considered of paramount importance. The committee, therefore, created a nomenclature suitable for uniform use.

The background behind this principle is of interest. As you know, in California we have been working since 1912 with a fee schedule, one produced to act as a guide in payment for medical services under the Workmens Compensation Act. As the years went on this Act came to encompass more of medical practice than injury alone. Therefore, the schedule had to be expanded to compensate. From this pattern many other schedules of fees were created and placed into operation to serve in other types of plans for prepaid medical care. A schedule of fees had to be created, for example, for the California Physicians' Service. Schedules of fees had to be created for operation of various and sundry programs of State and Governmental prepaid medical care. After World War II tremendous expansion in this field developed through negotiations between labor and management in the health and welfare fringe benefits. The public generally became much more interested in utilization of the insurance principle for prepayment of private medical costs. Blue Shield and Blue Cross expanded rapidly and private insurance companies entered the field in very active fashion.

In each and every instance, as a new prepaid medical plan was created, existing fee schedules were either adopted, altered or expanded to meet the needs of the particular plan in question and each individual fee schedule was altered to conform to the immediate problem facing the administrators of that particular plan. As a consequence there were almost as many different fee schedules as there were plans for furnishing medical care.

Over the past 15 to 20 years there have been repeated efforts on the part of the California Medical Association and its committees to produce a schedule of fees which would properly reflect the practice of medicine as it exists and properly protect the interests of both patient and doctor. I can recall vividly a meeting in Los Angeles at which we made an attempt to compare 22 different fee schedules existing in the State of California. We spent two days at the effort and finally threw up our hands in complete disgust. We found that there was no rational basis on which any comparison could be made between any two of the 22 schedules we had in front of us. One of the fundamental dificulties was the marked variability in nomenclature.

In order to attack our original problem, therefore, we sought out a method of procedure. The National Blue Shield-Blue Cross Actuarial Manual seemed to offer more help than anything in existence up to that time. Therefore, we used it as our guide.

The Blue Shield-Blue Cross Actuarial Manual, however, had many inadequacies for the solution of our own individual problem. It did not include pure medical services. Therefore, we had to create a new listing of medical services, as contrasted to the list of surgical procedures. The manual was also deficient in the listing of pathologic and x-ray services.

One of our earliest efforts, as a committee, was to approach various specialty groups asking their cooperation. Sub-committees were appointed, representing each group. At times we had as many as 60 to 80 physicians working on this problem. Through cooperation of the internists, the allergists, the pediatricians, the psychiatrists, the neurologists and other groups involved in rendering pure medical service to the public, we created a separate section in the Relative Value Schedule referred to as Medical Services. At every point along the way we sought also the advice of the California Academy of General Practice.

In the second section, referred to as Surgery, we employed the same system of sub-committee work. We went through the Blue Shield-Blue Cross Actuarial Manual in detail. We reviewed each item, deleted those which were obsolete, and added new procedures which we thought current in surgical practice in the State of California. By a similar process, the sections on pathology and radiology were revised to their present form.

The end result of our work was a standardized nomenclature for medical services furnished by physicians in California. It was divided into four separate categories: Medical Services, Surgery, Pathology and Radiology.

Standardized Coding System

The second need we recognized was for a standardized coding system to meet needs of actuaries, statisticians and all others who work with fee schedules and who have reason to compare one schedule with another. We used the system created by the Blue Cross-Blue Shield Actuarial Manual as a pattern. Wherever a listed procedure had been retained, we used the code number used by the manual. Wherever an altered, or added, procedure had been included, we gave it a number conforming to the basic pattern. We now have a specific code number, in a four digit system, for each individual service listed in the Relative Value Schedule.

Relative Value Scale

Our third basic problem was to create a relative value scale rather than a fee schedule based on dollar value.

Here, perhaps, is the most fundamental contribution made by this committee. It is perfectly self evident, to members of this audience, that wide divergence of dollar values must exist in any fee schedule for medical services. There are fundamental differences between service type plans and indemnity plans. There should be differences in dollar values for medical services to various income groups. The cost of operating a doctor's office in an urban community, such as Los Angeles, is different from that of an office for rendering exactly the same type of medical service in a small mountain community, where the cost of living and overhead is much less. We recognize geographic variation in fees and we recognize variation for economic reasons also.

There is another source of irritation. It has been common practice to offer an insurance contract to the public as a $500 schedule or $300 schedule. In such a plan the price tag would be applied to a surgical procedure which was so uncommon and so rarely done that it would have no significance to the operator of that particular plan. In that same schedule of reimbursements, however, the dollar values assigned to the 30 or 40 most common procedures would be so low that they would create irritation between patient and physician. Net result was growing irritation and mistrust between the operator, the purchaser and the physician. These same inequities were present in some of the earlier Blue Shield schedules.

By process of evolution we decided that we should be able to assign to each service a value in units which would reflect the value of one medical service as compared with another.

Perhaps I have failed to make myself completely clear. As an example, if a simple follow-up office visit is worth $5, we should, by comparison and investigation, determine the relative value to be assigned for a complete history and physical examination. This second service obviously would be worth more in dollars than the first. If we were to give an office visit a relative value of 1 unit, the second service should be valued in excess of 1 unit.

This was a new theory. We could understand its propriety, but we found it impossible to arrive at any method of determining relative value on purely theoretical grounds.

Therefore, we had to approach the problem from the standpoint of actual practice. Again it was our decision, therefore, that we should initiate a survey to find out, in terms of dollars, what fees were being charged by physicians in California for medical services being rendered to the public. The initiation of a survey of this type in itself was a difficult project.

We ran test surveys in Orange County and in Sacramento County. Orange County was chosen because it has average distribution of rural communities and Sacramento County was chosen because it is more urban in type. We ran these pilot surveys mainly to test our methods and approach. By means of this pilot study, we were able to create a much more elaborate and statistically valid questionnaire, which was then sent to every practicing physician in the State of California.

Nearly 5,000 California physicians filled out the sheets

and returned them to us for study. Responses were punched on IBM cards, and then we attempted to discover what facts could be determined from the survey.

We ran these cards in many ways. We broke up the replies into various categories of physicians, according to their type and specialty practice. We ran the cards according to 10 different geographic areas chosen to reflect geographic distribution of physicians. We ran them through in any and every way suggested by our advisers and we were finally told that we had a source of information which would allow us to determine what dollar values were in use in practice of medicine in California at that time. Highest and lowest were discarded. Using only the middle 80 per cent of the replies, we determined what the median and mode figures should be for each service.

When this phase of our study was completed, we had a dollar value for each of some 200 medical services which would account for 90 to 95 per cent of payments to physicians under any existing insurance program of prepaid medical care.

Doctors are human beings. The law of supply and demand in the field of economics applies as well to services of physicians as it does to any other commodity or personal service. If a thousand doctors in a given community were accustomed to doing tonsillectomies, our survey would reflect a very proper median or modal figure in dollars for a tonsillectomy. If only two surgeons in that same community were capable of removing a brain tumor, the dollar value listed by the two would seem excessive by comparison.

To circumvent the law of supply and demand in such cases, the committee established a ceiling charge of $500. This was one step.

The second step was to hold meetings of large groups to which we invited sub-committee members representing the various branches of medical practice.

In these so-called knock head meetings, individual groups of physicians argued, sometimes violently, sometimes with equanimity, but at all times with honesty, I believe, to adjust the dollar values in our survey to a level which would be just and equitable to physician and patient alike.

Finally, these same committee members took the nomenclature which listed all of the services for medical care and, using our survey as a pattern, assigned a dollar value for each medical service.

When this monumental task was finished, the committee reviewed each individual item and each section. Whenever any criticism or controversy existed, we would call another meeting of the entire group to thrash out and adjust our schedule.

When this work of several years was completed, we had a listing of dollar values for each type of medical service being furnished by the practicing physician of California. It then became a simple mathematical problem to convert to a unit value. This was done.

Schedule Divided into Four Segments

Final task of the committee was to break the schedule into four separate segments: Medical Services, Surgical Services, Radiologic Procedures and Laboratory and Pathologic procedures.

High cost item in any prepaid medical plan is medical service. Very few, if any, of the existing plans at the time we started our work did anything other than list the fee for a home, office or hospital call. This did not take into consideration the problem of compensation where a complicated detailed medical evaluation must be done.

It did not take into consideration the fields of neuropsychiatry, allergy or pediatrics. Many of the earlier prepaid medical plans did not include medical services at all; they furnished nothing but surgical coverage with a minimum amount of coverage for laboratory and x-ray study. As these plans expanded and as these services were offered to the public on an insurance program, it became necessary to reflect the proper type of medical care in a fee schedule.

When you start to change the dollar value of a medical fee schedule in terms of percentage you may unbalance the plan. If you cut the value of medical services by 25 per cent and apply the same factor to surgical services, you might possibly be cutting the price for medical services too far. The same 25 per cent reduction in a surgical fee might create no economic problem. The percentage change produced by removing one dollar from a follow-up office visit might, in some instances, create as much as $100 change in a surgical fee.

The same type of reasoning can be applied to percentage variations in the dollar values to be assigned for payment under laboratory and pathology or x-ray where the cost of overhead and the cost of operation is tremendously high, as compared to the other two general groups, medicine and surgery.

With respect to the surgical section, we feel that any listing of relative values to include the services of the anaesthetist or the assistant should be tied strictly to the surgical section, as an integral part of that section and never separated from it.

Finally, we recommend strongly that the separate section of pathology and the separate section on radiology be maintained also.

Continuing Study Conducted

The Committee on Fees of the California Medical Association does not presume to believe for one moment that we have solved the problem of fee schedules for all time. We do believe that we have made a significant contribution. We are conducting a continuing study of the problem and we realize that it will be necessary, from time to time, to analyze our work critically and adjust it according to the experience of those who utilize it. We are currently in the process of preparing our first major revision, to include the Relative Value listing for anesthetic services and to correct some of the criticisms which our committee has received from insurance carriers and physicians since date of original publication in February 1956.

The work of our committee has aroused an astonishing amount of interest. We have distributed in excess of 15,000 copies of the Relative Value Schedule at this time and many additional copies have been printed from those copies distributed.

Many insurance companies have adopted it as the format for indemnity plans now for sale in the State of California. Several county medical societies have also been utilizing the Relative Value Schedule freely in their negotiations and with success.

Relative Value Schedule Used in Medicare Program

The Department of Defense used the Relative Value Schedule as the pattern for the expansion of the Medicare Program. A very curious, and to me a rather unhappy circumstance, arose in the Medicare Program, however. The Department of Defense adopted the format and coding system of the Relative Value Schedule. They then published a survey pamphlet listing a group of medical services and a code number for each one of them, but left the Relative Value figures off. They submitted these survey pamphlets to each of the 48 states and 3 separate territories of the United States.

Fifty-one committees of practicing physicians were hastily assembled to assign a dollar value to each one of the procedures listed in the survey. As a consequence, you readily see, they received 51 separate committee reports and there was no correlation between any of them. After this was done, the rest of the negotiations between the State Committees and the Federal Government were conducted on a dollar factor to be applied to the Relative Values established as proper by the California Medical Association survey.

This was not a unilateral action on the part of the Department of Defense. There was sincere fear on the part of many state medical associations that the dependents' medical care program would immediately establish a national fee schedule. The wide variation in the dollar amounts in the existing Medicare fee schedules attest to the fact that no national schedule has been established.

As a consequence, we have a very large number of fee schedules listed in terms of dollars. They vary so widely that it is difficult, if not impossible, to compare one with another. I think if all negotiations had been conducted on the basis of a dollar factor, and the relative values had been preserved, less administrative confusion would exist. Perhaps the present situation more properly reflects the manner in which medicine is practiced throughout the nation and, therefore, should be continued. Time, progress and experience will decide.

Conclusion

We accept the fact that it is impossible to create a perfect document in this field. There never has been and never will be a schedule of fees for medical services completely acceptable to all parties concerned. We think we have produced a very adequate working compromise in the Relative Value theory and in the Relative Value Schedule. Only through the advice of those of you who use it, can we determine, in fact, whether the theory is workable, sound and proper. Only through your advice can we discover our errors and correct them.

Getting the Most Out of Your Committees

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San Francisco, California

Committees play an ever-present role in today's society. They are part of a formal and informal structure, superimposed on the organization of most industrial enterprises. They play a role in the Congress of the United States or in your own local community government. They are part of lay church activity.

Often committees identify the corps of hard-working in-group members of an organized social group. Voluntary community organizations turn to committees for guidance, sometimes to supplement the activities of their paid staff representatives. Professional organizations have committees for technical guidance and advice. Because of the ever-present role of committees in today's society, hardly any of us escapes committee membership.

Committees take time, and time is certainly a precious commodity. Most of us have difficulty finding enough time for our various interests, concerns, and responsibilities. No wonder key executives frequently complain, "There just aren't enough hours in the day." For them there are not.

People are scarce too—particularly people who can assume responsibility and authority, who can manage well, or who have a high degree of skill.

One executive complained to me a short time ago that his company encourages a daily hour-long meeting of key people. Although they occasionally consider a serious matter during this hour, it has turned into something of a Kaffeeklatsch, a time to discuss golf games, or similar activities. The executive complains that this hour is lost from his workday and is a serious misuse of his own time.

Another man I know who is on the board of a voluntary community organization told me that the organization's board meetings, although infrequent, often last as late as 2 a.m. This man is an active professional person whose regular practice requires odd and long hours. He resents this additional intrusion into his time.

Such men want to make the best use of their time and efforts. They look for ways to make group action—as represented in committee meetings—more meaningful, for they feel that committees, as they are now generally established, do not represent the best way of using their own skills and experience.

Much of the literature on committees is keyed to techniques for better handling of committee meetings. In fact, research efforts thus far appear to have been devoted primarily to the consideration of interrelationships of individuals in group action circumstances. Many research groups in universities have devoted their attention to these subjects, as have such other activities as the Human Relations and Morale Branch of the Office of Naval Research. Here we will only briefly discuss techniques for better handling of committees. This is because we feel that if you are to get the most out of your committees, you should devote your attention first to determining when—not how—to use committees. Then you should establish guidelines for their effective use. To understand when to use committees one must appre-

ciate the pitfalls as well as the advantages associated with committees. We intend to describe these pitfalls and advantages and to discuss situations in which committees are most and least useful, and conclude with some guidelines for the effective use of committees.

When To Use Committees

Some committees are successful, some are not. Why? Understanding committee advantages and disadvantages provides the answer.

Here are some pitfalls and disadvantages associated with committees:

1. *Committees are time-consuming and burdensome.*

Many executives complain that committees compel them to divert precious time from more pressing responsibilities. They say that they are required to attend committee meetings to discuss rather routine matters. Too often, they say, the matters discussed are not pertinent to their participation or are not serious enough to require their presence, and to be adequately informed they must wade through volumes of material before and after the meetings.

A recent analysis of executive committee assignments in one organization showed that the total number of hours spent in committee meetings equalled approximately the full time of three executives. At least five key executives spent over 26 hours per month (exclusive of preparation time) in committee meetings. Officers of other organizations have reported participation in committee meetings to be so burdensome as to require half their time each month.

2. *Committees make decisions more slowly and no better.*

"That's it," he thought. "That's Freesmith's first principle of human behavior: one person can make a decision faster than a group. That's exactly, perfectly, precisely, absolutely it." This is a comment made by one of the characters in Eugene Burdick's novel, The Ninth Wave. And it emphasizes exactly, perfectly, precisely, and absolutely the general opinion of a prime disadvantage of committees. To many executives, committee meetings represent hours of bickering, "i" dotting, "t" crossing, discussion of minor facts, review of nonpertinent data and information, or simply, diversion to lighter considerations.

If decisions are slower, are they not better? Proponents of group decision-making claim that the decisions are better, and that the time is therefore well invested. Some executives point to important decisions reached as a result of a brainstorming session during which a key idea was expressed. But these same executives agree that these ideas may have been expressed by any of a number of other means. Ralph J. Cordiner, President of General Electric, said this about committees at a leadership conference in 1954:

> There is an important difference betwen a team and a committee. On a committee, everyone feels like an expert on everything, and no one has responsibility for anything. On a team, every man has a specific job to do, in relation to the whole. He knows what it is, and he carries out his responsibilities with due respect for the objectives of the organization as a whole.
>
> To put it another way, great discoveries and great decisions are made by individuals, not by committees.
>
> If you can name for me one great discovery or decision that was made by a committee, I will still find you the one man in that committee who had the lonely insight—while he was shaving, or on his way to work, or maybe while the rest of the committee was chattering away—the lonely insight which solved the problem and was the basis for decision.

Here is another example of opinion from a key business executive. Mr. C. F. Kettering, during World War I, began a search for a knock-free airplane gasoline. It was concluded that gasoline obtained from a particular California crude oil appeared much freer from knock.

> Ket suggested that the California gasoline be used for planes in combat, but a committee rejected his idea. Said Ket later: "If you want to iron a thing down to mediocrity, get a committee to pick flaws in it. Why? Because only one man in a thousand has imagination."

A later comment made by Mr. Kettering further indicates his feelings about committees. When Mrs. Kettering read about Lindbergh's solo flight across the Atlantic, she said to her husband: "How wonderful that he did it all alone!" "It would have been still more wonderful," he replied, "if he had done it with a committee."

Committees are too frequently remote from the problem under consideration to make a valid or accurate decision. Because of incomplete staff work, the committee often does not have enough information available. In addition, the group atmosphere prevents individuals from exercising their best judgment and deepest thinking.

This is what William Whyte said about committees in his book, The Organization Man:

> HERE IS ONE ACTIVITY WHERE COMMITTEE "EXPERTISE" IS AN OBSTACLE. In a committee which must "produce" something, the members must feel a strong impulse toward consensus. But if that something is to be a map of the unknown, there can hardly be consensus on anything except the most obvious. Something really bold and imaginative is by its nature divisive, and the bigger the committee, the more people are likely to be offended.
>
> At this vital moment, the moral responsibility one feels to his colleagues becomes a downright hindrance. A committee member might be inclined to support an idea, but he is also not inclined to put up the fight for it that will be needed. He is constrained by good will. He feels an obligation to his fellow committeemen, who are, after all, only trying to do a good job, like himself. So he compromises, not from mere timidity but from a real desire to show respect for the opinion of others. Even if he has trouble mustering up the respect in some cases, his good will may make him feign it. He has immediate social as well as professional considerations to think of, and throughout any meeting there runs a tacit dialogue that often has very little to do with the ideas being discussed.

Committee meetings take time. Decisions made in committees are slower and no better (possibly poorer) than if made by an individual.

3. *Committees circumvent normal authority relationships.*

This is particularly true in organizations which believe in placing real responsibility and authority in their key people. Here is a comment made by Ralph J. Cordiner regarding General Electric's program of decentralization.

"Its practical result is to put the responsibility for making business decisions not with a few top executives, but with the individual managerial and functional employees who have the most immediately applicable information required to make sound decisions and take prompt action. When such responsibility—along with commensurate authority and accountability—has been delegated according to a carefully planned organization of work, then each individual in the company has a challenging and dignified position which will bring out his full resources and enthusiastic cooperation."

In another pertinent comment, Mr. Cordiner said, "We are trying to avoid committees—committees that have an operating function to perform or decisions to make . . . we now have one committee, and it is advisory in name and fact; we feel that if we really are going to have decentralized authority, we must rely on individuals, not on committee decisions."

I recently observed committee activities in a large organization. I found that some individuals used the committee as a means to circumvent their superiors. Others used the committee to duck authority or responsibility. One group of executives, for example, brought to a daily committee meeting decisions which were appropriately theirs to make as individuals. This happened so often that the accustomed habit of these executives was to make few if any decisions themselves as individuals. The committee had circumvented the normal authority relationships.

Another by-product is the difficulty in holding individuals accountable for results and measuring individual performance.

4. *Development of people can be retarded.*

Making decisions in committees retards the development of people. Individuals develop best in an atmosphere that requires them to assume initiative and responsibility for making decisions. But in some committees decision-making responsibility is given to the group rather than to an individual. The individual then assumes only partial responsibility and shuns the initiative. This impedes his development.

Committees do play three important roles: as a training technique in developing people; as a form of communications; or as an atmosphere for problem solving. But communications do not develop people. Rather, they assist in personal development. Committees actually deter development when decisions are made by the group rather than by the individual himself.

To summarize quickly, we have said that associated with committees are certain pitfalls and disadvantages:

1. Committees are time-consuming and burdensome.
2. Decisions are slower and no better if made in committees.
3. Committees circumvent normal authority relationships.
4. Committees can retard development of people.

Advantages of Committees

Committees do play a most useful role in organizations today.

1. *Advisory committees can be useful.* Perhaps the most frequent use of committee action is that related to consultation and advice. Consultative management reached its most impressive form in a system of advisory committees generally called *multiple management.* Under this kind of program the key top executives typically form an advisory committee to the highest level of management. Each of these executives in turn is a chairman of a committee at the next lowest level of management. And so forth, through the various levels of management. This procedure spreads information quickly to all parts of the organization. Those who favor this technique say it brings problems to the attention of the responsible individual, along with the facts, experience and knowledge that can provide the best solution at the lowest practicable level.

D. W. Blend, vice president of Calumet Hecla, Inc., and general manager of the Wolverine Tube Division, described his company's multiple management plan in an article called Point of Decision in *Dunn's Review,* July 1956. Here are a few comments from that article:

> Multiple management committees are not joint discussion groups that manage by a show of hands. The chairman makes the final decisions—decisions are his responsibility. When the group discusses their problem, every member is given an opportunity to express his opinion . . . Each opinion is given consideration by the chairman in reaching the final conclusion, but the chairman is the man who approves the group's conclusions or makes the decision. This is of primary importance in the function of the advisory committees at Wolverine Tube.
>
> In these advisory committee meetings policies are formed, plans are developed and objectives established to implement the over-all program of the division. In all cases it is necessary to evolve ideas and find solutions to problems. The amount of information that flows in and through the sessions is amazing.

Consultative management or advisory committees are best used when one wants to tap the resources that exist across departmental lines to explore proposals and ideas and to have the advantage of diversified thinking. But consultative management should not replace the normal expected responsibility and authority, both for making decisions and for advising, which lie in individual key positions in any organization.

Committees are useful, then, when various organizational viewpoints must be represented and when the problems considered require diversity of background not found in an individual.

2. *Committees can aid communication.* Committees provide a vehicle for effective dissemination of policy and information. This is an advantage of a committee, particularly where in addition to securing cooperation in the execution of a decision, it is important that the decision be considered fair and free from bias. Participation in a discussion of the decision leads to a greater acceptance and a fuller understanding of it. The face-to-face communication in committee action helps to convey more complete information—for example, information regarding the underlying reasons for a given action, policy, or procedure. Committees also form vehicles for upward communication in the organization.

3. *Committees can be helpful as an employee relations device.* Because they aid in communication and provide

a vehicle for employee participation, committees contribute to better employee relations. Salary, suggestions, and grievance committees, for example, assure employees that matters are given a broad and fair rather than arbitrary consideration. In a survey of the relative merits of individual and group action, the American Management Association found the most significant influence which can be exercised by committees effectively is in matters relating to jurisdictional questions. The effect of jurisdictional problems on employee relations is considerable. Committees form a vehicle for consideration of matters of concern, for "blowing off steam" and, as mentioned previously, for assuring employees that matters affecting them are given proper consideration.

Advantages and Disadvantages Summarized

We have explored the advantages and disadvantages of committees. There are certain pitfalls associated with committees—they are time-consuming and burdensome, decisions in committees are slower and no better, committees circumvent normal authority relationships and can retard development of people.

Committees have advantages, too. They are most useful for advice and consultation, for aiding communications, and for their influence on employee relations.

These attributes provide a means for deciding when to use committees. In general, avoid decision-making by committees; be certain you do not place before committees decisions which should be handled by individual executives; and use committees primarily as a means for guidance, problem solving, reviewing jurisdictional matters, communications, or when you need to bring about better employee relations.

Guidelines for Effective Use of Committees

There are certain guidelines you can use to help get the most out of your committees. We have observed that organizations which utilize guidelines such as these find they typically help their chief executives and key management personnel make the best use of their time, make decisions more quickly and effectively, and develop future management personnel. Essentially there are six key guidelines:

1. *Make certain you need the committee.* Keep in mind that committees can best provide a medium for communications, guidance, and problem solving and to aid in improving employee relations. They are least effective in situations where decision-making is required. Then view the committee's purpose and function and make certain that this does not overlap or conflict with responsibility and authority you have assigned elsewehre in your organization. Having established that there is no such conflict, be certain that the purpose of the committee can be carried out better by a group than by an individual. For example, if the purpose of the committee is communications, be certain that other means cannot be used more effectively. If you are convinced that a committee is needed, avoid establishing a new committee if one of your existing committees can serve the purpose in line with its other responsibilities.

2. *Fix committee functions and responsibilities.* One of the most consistently agreed upon principles of organization is that duties and responsibilities should be definitely fixed and commensurate authority granted to carry out each assigned activity. The fixing of committee functions and responsibilities is as important as the fixing of authority and responsibility of individual key officers in the organization. Tell the committee what it is supposed to do. Clearly define the responsibilities of the individual committee members. Define the relation of the committee to other segments of your organization. It helps to define these functions and responsibilities in writing.

3. *Clearly determine the membership of the committee.* Having established the need for the committee and fixed its duties, functions, and responsibilities, now be certain that the individuals you select for membership on the committee are those who can best contribute to the committee objectives. Avoid circumstances which may allow for committee domination. When subordinates and superiors are on the same committee, the subordinate usually is less effective as a committee member. Consider the personalities of the people you select for committee membership. Putting extremely dominant personalities on committees along with passive individuals makes for committee domination and usually results in a less effective committee.

Consider the size of the committee. Keep it small enough to allow for effective contribution. Here are some comments recording some of the findings of a study in 1947 by the Laboratory of Social Relations at Harvard University.

> There seems to be a crucial point at seven. Below seven, for the most part, each person in the group says at least something to each other person. In groups over seven the low participators tend to stop talking to each other and center their communications on the few top men. The tendencies toward centralization of communication seem to increase rather powerfully as size increases.

4. *Use proper techniques for effective committee meetings.* Once you are certain that you need a committee, have fixed its functions and responsibilities, and determined who will participate in it, then it is important to know how to make committee meetings effective. Techniques for effective committee meetings include:

(a) Clearly identify the purpose of each meeting (this includes an agenda).
(b) Select an appropriate time and place for the meeting.
(c) Train the committee chairman in the techniques of discussion and leadership.
(d) Train committee members in techniques and purposes of proper participation and followership.
(e) Maintain the committee meeting schedule.
(f) Properly conclude all committee meetings.
(g) Provide for committee meeting follow-up.

5. *Establish committee controls.* If you have carefully identified the functions and responsibilities of the committee and have estimated properly the amount of time which will be required for committee participation, then you can establish controls which will tell you whether or not the committee is meeting these objectives and time requirements. For example, committee minutes will tell you the hours that a committee has met. If this committee is meeting too frequently, it may be discussing mat-

ters not within its purview or wasting time, or the subject it is assigned may be more complex than you thought it to be. If the committee is not meeting frequently enough, it may not be providing for a sufficient consideration of the subject. A simple time control will enable you to check this with the committee chairman. A quick review of committee conclusions and subjects for consideration against the carefully identified functions and responsibilities will tell you whether or not this committee is meeting its objectives.

6. *Appraise committee performance.* Having established the duties and responsibilities of the committee and proper controls over its actions, you are in a position to appraise the performance of the committee. Here are some things you may consider in such an appraisal. Ask yourself if the purpose and functions of the committee are clearly defined. Review again the committee's responsibilities to be certain that there is not some individual who could assume these responsibilities more effectively. Review at least annually your other committees to be sure that an existing committee might not assume the responsibilities for the committee you are appraising. Ask if two committees can be combined. Review the costs of the committee. The most obvious of these are the costs pertaining to the meeting time of the various committee members. Have the responsibilities of any of the committee members changed? Should new people, therefore, be appointed to the committee? Be sure that the committee has not outlived its original purpose.

Having considered the above matters, review specifically what the committee has accomplished during the past year. Obviously, unless the committee is serving a useful purpose, it should not be continued. As part of this review, be particularly aware of the possibility that minor problems are being referred to a committee of executives. Can these problems be handled on a lower level of your organization?

To repeat, there are six important guidelines which will enable you to get the most out of your committee:

1. Make certain you need the committee.
2. Fix committee functions and responsibilities.
3. Clearly determine membership of the committee.
4. Use proper techniques for effective committee meetings.
5. Establish committee controls.
6. Appraise committee performance.

Conclusion

To get the most out of your committees, use them primarily as a medium for communications, guidance, problem solving, and to aid in improving employee relations. Avoid using committees as a vehicle for making decisions, particularly when decisions are the responsibility of an individual. Devote attention to determine whether or not you really need the committee, just as you do when you decide if an individual job is really needed. Committees can be even more costly.

Then, fix the committee's responsibilities, decide with care who should be a member of it, provide training in techniques for effective participation, establish controls and appraise its performance.

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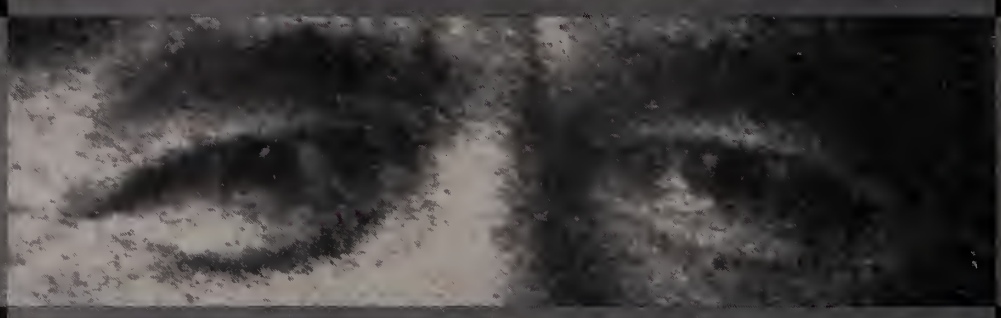
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Source—Hyman, M.: Some Aspects of Psychiatry in General Practice, GP *16*:83 (Oct.) 1957.

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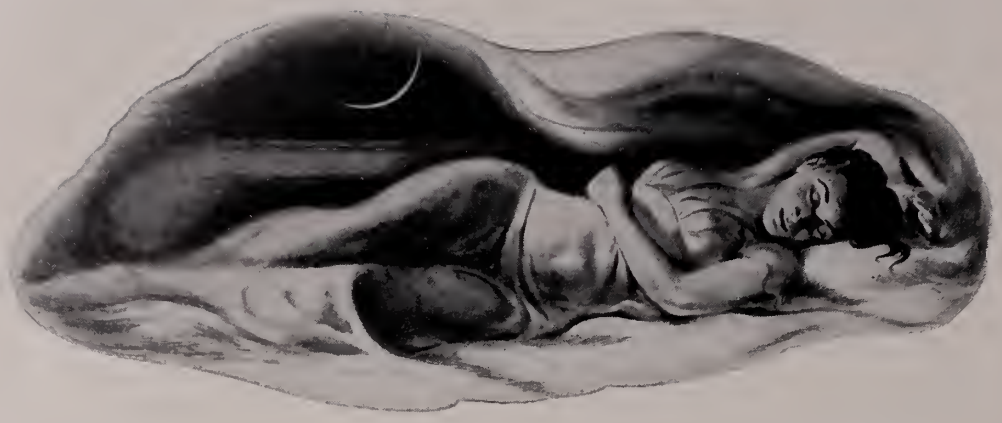


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Current Concepts in Therapy: Sedative-Hypnotic Drugs. II. Chloral Hydrate. New England J. Med. 255:706 (Oct. 11) 1956.

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1. Blanchard, K., and Ford, R. A.: Journal-Lancet 74:443, 1954.
2. Blanchard, K., and Ford R. A.: Rocky Mt. M. J. 52:278, 1955. 3. Cass, L. J., and Frederik, W. S.: Am. Pract. & Dig. Treat. 2:844, 1951.

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Judge Oppenheimer Discusses Medical-Legal Film At Joint Medical Society-Bar Association Meeting

On October 15, 1957, more than 500 members of the Multnomah County Medical Society and the Multnomah Bar Association attended a joint meeting to view a medical film and the medical-legal film, "The Medical Witness," produced by the American Medical Association. Following are some of the comments on "The Medical Witness" presented to the group by Judge Eugene K. Oppenheimer, B.A., LLB, veteran judge of the Multnomah County Circuit Court.—Ed.

When first invited I hesitated to appear here for two reasons.

First, I questioned the propriety of a member of the judiciary engaging in a discussion such as the one at hand. Secondly, I did not want to appear as knowing all the answers. In short, I did not want to appear as a "wise guy" because I well know my limitations and the impossibility to make an accurate diagnosis and reach a sure cure.



JUDGE EUGENE K. OPPENHEIMER

To my mind the film we have just seen portraying the inefficient doctor witness is extreme, to say the least, in comparison with what actually happens in court. I am sure this was done purposely to make a point by comparison.

My remarks are not intended to be pro or con and will be limited in the main to "The Medical Witness." Comments as to the lawyers' part are for another day. What little I have to say will be of a "popcorn" nature—i.e., here and there without sustained continuity— and might well apply to any expert witness although pointed to the Medical Witness.

First let us deal in a few generalities.

Of course there should be a contact between the attorney and the witness. The witness should know what the question intends to elicit and the attorney should know what can be elicited from the witness. They should not be like the general in the Spanish-American War who said he had 10,000 men who had never seen a horse and 10,000 horses who had never seen a man.

Too often one observes conferences between the doctor and lawyer in the corridor outside the courtroom or the doctor will be there examining his records—all for the purpose of testifying immediately thereafter. This seems to be far too casual a preparation for a common understanding and the best results.

No one can instill the power of expression in a witness if he does not have that ability. However, conference and discussion can improve the manner of expression. Power of expression, as you all must know, has a telling effect on the listener. The learned may not be too fluent while the less learned may be more glib and effusive. The manner of speaking and the witness' postures in the witness chair have their place in effectiveness.

The narrator in this film remarked that the problem or question was the relation between the medical witness and the lawyer. This is true to a limited extent but the statement truly misses the *underlying* basis upon which a medical expert *should* testify. What is this underlying basis?

To me this basis is the relation of the doctor to the tenets of his profession—its high ideals and standards. I repeat—the doctor's respect for a noble profession by reason thereof appreciates the limits beyond which he must not go. If this basis is kept in mind, the problem of the medical witness as to substance as distinguished from procedure will be greatly lessened.

The medical profession encompasses a great science, involving long and continuous study and stands high on the pinnacle of respectability. The people want to look to it with confidence and guidance.

In a medical-legal aspect the doctor should not assume the role of an advocate. He should not take the offensive to put something over. *That is* the lawyer's job.

He should give his testimony in relation to his skill and knowledge and always in deference to his profession as one of science and with a high standard of ethics. His opinions should not be available to the money market like the weather vane to the wind.

It seems to me that there are three requisites to a formula that the expert should employ as a gauge:

1. One must get the facts of the case or situation;
2. One must form an honest judgment as to what those facts mean;
3. One must be able to fairly support his honest judgment by sound reason and medical logic.

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The film just reviewed shows the lawyer at all times standing close to the witness. This encourages the witness to talk to the lawyer and vice versa with the probability that the best effect of the testimony is lost to the jury.

The picture also shows that x-rays were discussed for positive findings without a shadow box. Without a shadow box I doubt if a jury can gain any benefit from x-rays.

Here is one point that often causes objection by opposing counsel and evokes discussion. Different words with different people may mean the same thing—but this may not satisfy a legal standard. The law only recognizes a reasonable probability, not a possibility. Within the terms of possibility are such expressions as *might be* or *might or could be.*

I appreciate that medicine is not an exact science. However, when a question is put which calls for so-called medical opinion, the witness must first state whether he has or can express such an opinion in the light of the question. If he answers in the affirmative, then his answer must be within the range of *reasonable* probability—I repeat, not possibility. This difference should be kept in mind by the witness and his answers should be made accordingly.

I must remind the doctors that upon direct examination the lawyer cannot ask leading questions. In brief this means a question so phrased that it suggests an answer. However, this can be done on cross examination.

Many times a question will be put to a doctor as to whether the injuries in question were caused by the accident. For example, did the fall cause the injuries? This is objectionable because the *cause* of the injuries is a question of fact for the jury. However, the doctor can state that from a medical standpoint there is in his opinion a causal connection between the injuries found by him and the accident.

The *cause* of the injuries is for the jury to decide. However, that such injuries could with reasonable probability from a medical standpoint bear a *causal* connection with the accident can be shown by the medical witness.

The question at times arises as to when the history of an injured party may be repeated by the doctor. The rule is that the *treating or attending* physician may repeat what the patient said in regard to his or her injuries. This excludes the cause of the accident as stated by the patient—e.g., a drunken driver ran into me.

A physician who examines a party merely to testify on his or her behalf as to injuries cannot give the history of the patient as to the claimed injuries. This legally would constitute a self-serving declaration—i.e., the statements could be made to boost or serve the interests of the individual such as false statements.

A doctor who examines on behalf of the party against whom a liability is asserted, generally in personal injury cases, may testify as to any statement the injured party may have made because this is treated legally, if adverse, as a declaration against his or her interest. This is permitted under the legal precept of what is known as a "declaration against interest."

Many times a doctor may believe that merely because the lawyer for the side that did not call him starts to cross examine him that the lawyer is bent on proving him inaccurate, not fully versed with the subject or to be exaggerating beyond the limits of the truth. Generally this is not so. Of course, it may be true, but if the doctor will remember the three point formula heretofore mentioned, difficulty will not be encountered.

The doctor is a scientific witness, he is not an *advocate.* He must let the chips fall where they may. He need not be acrimonious or argumentative or be fearful something is wrong merely because he is being cross examined. He has done his part if his answers comport to his honest opinions based upon his scientific knowledge.

When a doctor is called on behalf of the injured party, naturally the charges for his medical service is an issue. On such occasions the doctor is asked, what is the amount of the bill? At times doctors will answer that they really do not know as that is up to the office secretary. One can understand that the secretary makes the entries but who would know better than the doctor what his service is worth?

At times the amount of charges appear to be the result of litigation or to serve a purpose and not to have been made in the regular course of treatment. The amount of pay any expert is to receive is always subject to question as a bearing on the interest of the witness.

Where there is an important medical question to be based upon a hypothetical state of facts, it might be well for the attorney to make a written draft of the question and submit it to the doctor before trial. The question, of course, would have to be read during the trial and it could then be shown that it had previously been presented to the doctor. This gives the doctor a better opportunity to study the question, be better fortified and make his answers more impressive.

A very common question put to a doctor is whether or not in his opinion the injured party has a permanent injury. This gives the doctor a marked lee-way, and I guess the best one can say is let his conscience be his guide. Although, as first stated, his sense of responsibility to his profession and its ideals should be the propelling influence based on his knowledge and experience. It is my understanding that there can be a permanency without functional disability and a functional disability without evidence of marked objective findings. In any event, the opinion given should not be an offhand conclusion to serve a cause.

Many of the points I have mentioned should be developed to a greater extent but time does not allow. I thank you all for this pleasant and enjoyable opportunity.

Julian Johnson of Philadelphia Addresses Eugene Surgical Society

Featured speaker at the fourth annual clinical meeting of the Eugene Surgical Society was Julian Johnson, professor of surgery at the University of Pennsylvania Medical School in Philadelphia. The meeting was held November 11 in the auditorium at Sacred Heart Hospital with the evening session and dinner being held at the Eugene Hotel.

Dr. Johnson spoke on Present Status of Cardiac Surgery and Present Status of Surgery of Duodenal and Gastric Ulcers. Local physicians who also presented papers at the meeting were: Leonard Jacobson, Donald Brinton and John Kirk.

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Lane County Organizes Bureau To Present Talks to Public Groups

Three months of planning which began in October has culminated in the organization of a Speakers Bureau by the Lane County Medical Society. Thirty-nine members of the Society are available to present discussions on various medcial topics to public groups.

According to T. F. Brinton, Lane County Public Relations Chairman, the first step in working out the project was to send questionnaires to all Lane County members and compile the names and subjects of the volunteer speakers. Next, a speech professor from the University of Oregon gave instructions in public speaking at a dinner meeting.' And finally, a brochure was prepared which outlined the objectives of the Bureau, listed the choice of subjects and also told how to obtain speakers. This brochure was sent to the local news media, all Lane County members and all service clubs in the area.

The purpose of the Bureau as set down in the brochure is "to present a well-rounded program of accurate, up-to-date and interesting information on health and medical subjects . . . The doctor feels that his responsibility to the community does not end with the daily care of the sick. Learning and teaching is a large part of his daily life. He is equipped to give people useful information for the preservation of health through the Speakers Bureau of the Lane County Medical Society."

Other county societies which are interested in knowing more about this project are invited to request forms and information from: T. F. Brinton, M.D., Room 245, Sacred Heart General Hospital, Eugene, Oregon.

Artificial Kidney Gift to St. Vincent

St. Vincent Hospital, Portland, recently was given an artificial kidney—the first available for public use in the Northwest. The machine was a gift to the hospital from the St. Vincent Hospital Guild.

A spokesman for the hospital staff said the artificial kidney will not be used in chronic cases of kidney disease, but where a patient's kidneys have been temporarily damaged through injury, shock or carbon tetrachloride poisoning. The staff physician also stated that Portland has about 60 cases of uremia each year, about half of which are fatal.

Postgraduate Program Held in Corvallis

An all-day postgraduate program on General Medical and Surgical Problems was held November 19 in Corvallis. Physicians from Linn, Lincoln and Benton counties attended the lecture series.

Guest speakers, who each presented two lectures, were: Richard H. Upjohn, general surgeon; Charles S. Campbell, internist, and George J. Schunk, pediatrician. All are Salem physicians.

Jesse Ray Named School Governor

Jesse L. Ray, Portland gynecologist and chief of the medical staff at Physicians and Surgeons Hospital, has been elected to the board of governors of Stanford University Medical School by the school's alumni association. Dr. Ray is a 1939 graduate of the Stanford Medical School.

John Hoffman To Head State Civil Defense Emergency Medical Service

John Hoffman of McMinnville, Yamhill County Civil Defense Medical Director, has been appointed chairman of a state civil defense emergency medical service. The announcement was made by Vern Miller, President of Oregon State Medical Society, at a recent meeting of the Yamhill County Medical Society.

Dr. Hoffman and five committee members will formulate plans for medical services during emergencies throughout the state.

The work of the chairman will necessitate visits to nearly every county where disaster plans will be established in all hospitals. In other counties, Dr. Hoffman will establish teaching programs which will include nurses' training in civil defense and operation of 200-bed emergency hospitals available in most areas.

Dr. Hoffman will serve as chairman of the committee for one year.

Chest Physicians Hear Report on Isoniazid

According to Edwin L. Kendig, Jr., of Richmond, Va., a national survey conducted by the U.S. Public Health Service has revealed that isoniazid slows or stops complications arising from tuberculosis in children. Dr. Kendig made his report November 8 at the University of Oregon Medical School during a meeting of the Pacific Northwest chapter of the American College of Chest Physicians and the Pacific Northwest Trudeau Society.

During his discussion, Dr. Kendig stated that 2750 children with TB are under observation in 33 pediatric centers in the U.S. and that isoniazid had prevented at least 80 per cent of the complications of childhood TB in this group.

Southwestern Oregon Medical Society Sponsors Symposium on Psychiatry

A symposium on psychiatry in general practice was held December 3 at the Coos Country Club, Coos Bay. The conference was sponsored by the Southwestern Oregon Medical Society and featured six speakers prominent in the field of psychiatry in the Northwest.

Guest speakers who appeared on the program were: James Shanklin, Portland; Minnie L. Watterman, M.So.W., Oregon State Health Department; John W. Evans, Portland; Edward M. Scott, Ph.D., clinical psychologist for the state health department; John H. Waterman, director of Section I, state health department; and George Saslow, professor and head of the department of psychiatry, University of Oregon Medical School.

Exhibit on Radiology Wins Award

At the recent anual session in Chicago of the Radiological Society of North America, a top award for basic research in radiology was given to two physicians from the radiology department of the University of Oregon Medical School.

An exhibit by Louis H. Frische and Charles T. Dotter received "magna cum laude" honors. It described their radiologic procedure for more precise localization of occlusions in coronary artery disease.

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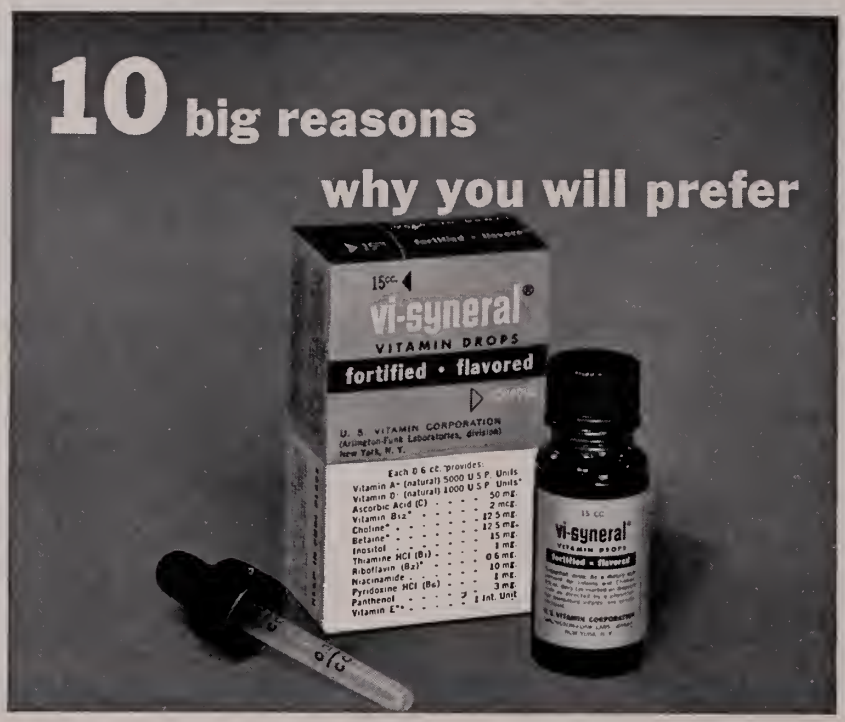
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Lane County Medical Society Elects Officers at Business Meeting

Keith D. McMilan assumed the presidency of Lane County Medical Society during the annual business meeting December 3 at the Eugene Hotel. He succeeded Leonard D. Jacobson. More than 100 society members attended the meeting.

During election of officers for 1958, the following were named to top posts in the Society: Emerson E. Abbott, president-elect; William I. Holcomb, vice president; Virgil W. Samms, secretary; Donald E. Moore, treasurer; and John D. Bonzer, John E. Tysell and Robert W. Lloyd, council members for two-year terms. All are Eugene physicians.

At a recent meeting of the Society Council, Robin M. Overstreet presented an intensified program which is being initiated by the Eugene School District for medical follow-up on positive tuberculin reactors. The Society recommendations are: (1) Pupil to be checked is to be referred to his own physician; (2) all new reactors are to have a large 14 x 17 chest x-ray; (3) therapy of tuberculosis cases is to be determined by the physician.

Society member Duncan B. Marsh has been appointed medical advisor to the Lane County Chapter of the American Red Cross for the Sections on Nursing Services and First Aid.

Financial assistance has been voted by the Society for postgraduate courses on athletic injuries to be held at the University of Oregon. The Society is joining with the University Department of Physical Education and the University Medical School in sponsoring the course, which will be given under the direction of Donald B. Slocum June 20 and 21.

Dr. Slocum will act as advisor to a committee of three—George W. Teller, Leland W. Stauffer, William D. Swancutt—which has been appointed to advise local high schools on training room equipment and athletic injuries.

Loren C. Barlow served as chairman of the Diabetes Detection Drive which was held during November.

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VERN W. MILLER, M.D.

President's Page

Last month this page carried the photographs of the members of your State Executive Committee for 1957-58. With this issue I would like to inaugurate a program of paying proper recognition to the many committee chairmen who formulate and guide the countless activities of the Society. It can truthfully be said that many Society policies are born in committee. The chairmen pictured on this page represent four very important committees.



W. W. Boum, M.D., Salem
Chairman 1957-58
Committee on Disability Insurance



Arch W. Diock, M.D., Portland
Chairman, 1957-58
Committee on Public Policy

The scope of their activities ranges from professional welfare dealing with our disability insurance program to our relations with the State Legislature and U.S. Congress as carried on by the Committee on Public Policy. The Committee on Public Policy also conducts extensive meetings and offers counsel to other organizations or agencies proposing to place bills in the legislature that would in some way affect the practice of medicine. The Committee also keeps Society members alert to legislative problems of the day. The Society's accomplishment in assuring proper medical care for the injured workman is exemplified in the outstanding work of the Committee on State Industrial Affairs. One of our many commitees that devotes its interest to medical science is the Advisory



Ivon M. Woolley, M.D., Portland
Chairman, 1957-58
Committee on State Industrial Affairs



H. H. Foskett, M.D., Portland
Chairman, 1957-58
Advisory Committee to the Oregon State Board of Health on Laboratory Standards

Committee to the Oregon State Board of Health on Laboratory Standards. Here the Legislature itself has called upon the services of your Society by establishing this committee as a legally constituted agent of the State of Oregon. In subsequent issues you will have an opportunity to meet more of the men throughout the State who are giving their time and talents to activities on behalf of medical organization and to the communities in which they live.

Vern W. Miller

President

Washington

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MEDICAL ASSOCIATION
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ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane Secretary, F. A. Tucker, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle



CONFERENCE PLANNERS: Members of WSMA Public Relations Committee are shown above as they met recently to plan the 1958 Conference for County Medical Society Officers, which will be held in Seattle January 25. From left are: Arnold Herrmann, Tacoma; Frank Henry, Seattle; E. Harold Laws, Seattle, chairman; F. M. Graham, Bellingham, and C. D. Muller, Bremerton.

Conference for County Society Officers To Be Held January 25

Featuring eminent guest speakers and subject material of vital concern to the medical profession, the second biennial Conference for County Medical Society Officers and Public Relations Chairmen will be held in Seattle, Saturday, January 25, under sponsorship of Washington State Medical Association.

President Milo T. Harris, of Spokane, announced that principal speakers will be Raymond M. McKeown of Coos Bay, Oregon, member of the American Medical Association Board of Trustees; George M. Fister of Ogden, Utah, chairman of AMA Committee on Legislation and also member of AMA Board of Trustees, and Mr. Warren Whyte of Chicago, executive secretary of AMA Committee on Legislation.

Dr. Fister and Mr. Whyte will discuss legislation, with particular reference to H. R. 9467, the Forand bill, which is now before Congress and is one of the most dangerous pieces of medical legislation since the infamous Wagner Murray Dingell bills of 1941-1951. The bill proposes that the federal government, by expanding the social security system, pay the cost of hospital nursing home and surgical service for persons eligible for social security benefits.

Dr. McKeown will be featured as luncheon speaker. His topic will be: The Challenge to Prepaid Medicine.

Other subjects on the program will be state legislation, press-radio-television relationships, and the Medical Defense Fund. Time will be provided for questions and discussion throughout the program. In addition, a forum will be conducted for the discussion of problems relating to county medical society activities and liaison with the State Medical Association.

The conference, to be held in the Olympic Hotel, is for county medical society presidents, presidents-elect, secretaries, public relations chairmen and executive secretaries. It is being planned by WSMA Public Relations Committee, under the chairmanship of E. Harold Laws of Seattle.

The first such conference was held in January 1956, and those attending rated it highly successful in improving liaison between the county societies and the State Association, promoting better public relations and as a forum for the exchange of ideas.

American College of Surgeons To Meet January 17 in Seattle

A cordial invitation is extended to all fellows and associates of the American College of Surgeons to attend the Pacific Northwest regional meeting in Seattle January 17. It is hoped all members of the College will invite interested physicians to participate in the meeting.

Scientific program will be held in the Health Sciences Auditorium of the University of Washington School of Medicine. Evening session will be conducted at the Rainier Club with a no-host social hour followed by dinner. Featured dinner speakers will be the College representative and president-elect Dwight L. Wilbur of San Francisco and John Paul Stapp, Colonel USAF, MC. Col. Stapp will speak on Man in Space.

Three New Members Appointed To State Board of Health

Three new members were appointed recently to the Washington State Board of Health by Governor Albert D. Rosellini.

New members of the Board are Carl Hutchinson, Seattle surgeon; Leonard McNamara, Soap Lake physician, and Talbot Wilson, Seattle dentist. They replace two physicians, Raymond L. Zech, Seattle, and Lawrence C. Pence, Spokane, and a dentist, Frederick H. Francis, Seattle.

Remaining members of the board are Bernard Bucove, Olympia, state director of health, who by law is chairman and executive officer, and Mr. Robert O. Sylvester, Seattle, sanitary engineer. Mr. George Ormrod, Olympia, state registrar of vital statistics, continues as secretary to the board.

Seattle Eye Bank Requests Physicians' Help in Obtaining Donations

One of the first active eye banks in the Northwest has been established at Providence Hospital, Seattle. The purpose of the Eye Bank is to collect eyes from recently deceased persons and to distribute the donated eyes to those eye surgeons doing corneal transplant surgery. Any eye surgeon needing an eye for a corneal transplant may place his name on the Eye Bank's list of eye surgeons, and he will receive a donated eye in rotation with the other surgeons.

The need for donated eyes for corneal transplant surgery is great. There are a number of patients who have been waiting for as long as four months for a donated eye so that sight-restoring surgery can be performed.

Every physician can be most helpful in supporting the Eye Bank and obtaining donations of eyes by telling selected patients of the work of the Eye Bank and the need for eyes. The Eye Bank, in turn, feels that it has an important responsibility to the donating patient's physician in keeping him informed when one of his patients has donated his eyes.

It is hoped that each physician will cooperate with the Eye Bank by informing Providence Hospital of the impending death of a donator. The donated eyes should be removed within four hours after death. The eyes can be removed in a hospital, mortuary, or the home by one of the Eye Bank Committee.

If an individual wishes to donate his eyes, he must sign two copies of a pledge form supplied by the Eye Bank. One copy is retained by the patient, the patient's family, or his attorney. The second of the two forms is forwarded to the Eye Bank at Providence Hospital.

There are approximately 25,000 visually handicapped in this country who could have useful vision restored by corneal transplant if there were enough donated eyes.

Doctors Hospital in Seattle Purchased by New Non-Profit Organization

The Doctors Hospital in Seattle has been purchased from the King County Medical Service Corporation at a price in excess of one million dollars. New owner of the hospital is the Doctors Hospital Association, a recently incorporated non-profit, charitable organization. The purchase price will be paid over a period of approximately 40 years.

The seven Seattle physicians who compose the membership of the new Association have long been identified with both the Corporation and Doctors Hospital. The officers are: Edward C. Guyer, president; Wilbur Watson, vice-president; James Standard, secretary-treasurer. Trustees include Rodney B. Hearne, John Collins, Morris J. Dirstine and Frederick A. Tucker.

The King County Medical Service Corporation has been sole owner of the Doctors Hospital since the government relinquished any claim to the facility upon its completion in 1944. The hospital was built during World War II with a federal grant of $665,000 plus a substantial amount contributed by the Corporation to whom the grant had been awarded. Although a division of the Corporation since 1944, the Doctors Hospital has actually been operated separately by the Board of Trustees of the Hospital.

Dr. Guyer, president of the new organization, has indicated that there will be no change in the administration of the hospital.

King County Medical Society Elects

Quin B. DeMarsh, Seattle internist, was named president-elect of King County Medical Society during the group's December business meeting. Dean K. Crystal, Seattle surgeon, was advanced to the presidency succeeding Wendell C. Knudson. Duncan Robertson was named secretary-treasurer-elect and Hugh W. Jones was installed as secretary-treasurer succeeding John R. Hogness. Members elected the following trustees: James W. Haviland, Waldo O. Mills and Robert W. Simpson. All are Seattle physicians.

Yakima County Medical Society Elects Officers for Current Year

During the regular December business meeting of the Yakima County Medical Society, new officers for the current year were elected and the Guide for Cooperation between the medical profession nad news media, which previously had been adopted by WSMA House of Delegates at the September convention, was unanimously adopted.

Fred L. Burrows succeeds H. F. Brundage as president of the Society. Other new officers are: Patrick A. Lynch, president-elect; C. A. DeLateur, vice president, and Stanley R. Durham, secretary-treasurer. Those elected by the members to serve as trustees are: Edward J. Shearer, Richard R. Sackmann and Frank LeCocq, Jr. Paul W. Rider was named delegate and Robert S. Fisher was selected alternate delegate. All are Yakima physicians except Dr. Shearer who practices in Toppenish.

The Yakima Society is the first to report adoption of the Guide. Prior to approval of the Guide at the December meeting, the Society's Executive Committee met several times with Mr. Charles Massey, Editor-in-Chief of the Republic Publishing Company. Mr. Massey has stated that the Yakima newspaper has established a policy of making no mention of a malpractice suit until judgment has been rendered by the court.

County Commissioners Okay Lease of Selah Hospital to State

Commissioners of the six counties—Grant, Adams, Yakima, Franklin, Benton and Kittitas—that own Central Washington Tuberculosis Hospital in Selah agreed on November 22 to lease the facility to the State Department of Institutions for use as a school for mentally retarded children.

Terms of the lease provide that the state will pay $3500 monthly rent, to be applied on the final purchase price of $250,000, if the next Legislature decides to buy it. The lease runs from Jan. 1, 1957 to June 30, 1959, with the monthly lease rate being divided among the six counties.

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Phosphorus (as $CaHPO_4$)	82 mg.
Iron (as $FeSO_4$)	15 mg.
Magnesium (as MgO)	6 mg.
Potassium (as K_2SO_4)	5 mg.
Iodine (as KI)	0.15 mg.
Boron (as $Na_2B_4O_7 \cdot 10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Manganese (as MnO_2)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Zinc (as ZnO)	1.5 mg.
Molybdenum (as $Na_2MoO_4 \cdot 2H_2O$)	0.2 mg.
Choline Bitartrate	25 mg.
Inositol	25 mg.
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Rutin	25 mg.
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Locations

David C. Groenig, formerly of Caldwell, Idaho, has entered into association with R. T. Harsh of Spokane for the practice of obstetrics and gynecology. Dr. Groenig received his medical degree in 1950 from the University of Minnesota Medical School and took his internship in Denver. After serving for two years in the air force in Fairbanks, Alaska, Dr. Groenig took three years of specialized training in obstetrics and gynecology in Kentucky. He had practiced in Caldwell for the past two years.

Kenneth K. Sato and *Donald Rice* have opened offices in Pullman for general practice. Both physicians were graduated from the University of Nebraska College of Medicine in 1953. Dr. Sato served his internship at the Delaware Hospital in Wilmington, Delaware. He then entered the USAF in 1955 and was stationed for two years in the Far East A.F. Headquarters near Tokyo. Following his discharge in February 1957 until his move to Pullman, Dr. Sato was on a general rotating residency at the Lincoln General Hospital, Lincoln, Nebraska. Dr. Rice interned at Nebraska Methodist Hospital and entered the air force in 1954. He served at Bentwaters, England and at Erding, Germany.

William G. Baldwin has joined the staff of the Eye and Ear Hospital in Wenatchee after recently completing two years of specialized training in otolaryngology, maxillofacial surgery and bronchoesophagology at University Hospitals, State University of Iowa. Dr. Baldwin's wife, Alpha, has been associated with the eye department of the Hospital for several years. Both Dr. Baldwins received their medical degrees in 1947 from Creighton University School of Medicine.

Betty Adams and *Robert Stovall* have joined the student health service of Finch Memorial Hospital in Pullman. Dr. Adams was graduated from the University of Washington School of Medicine in 1956 and served her internship at Deaconess Hospital in Spokane. Last summer she practiced at Northern State Hospital, Sedro Woolley. Dr. Stovall received his medical degree from the University of Utah College of Medicine in 1952. He served his internship in the navy and after his release in 1954, he began his practice in Waterville.

Alfred Blalock Discusses Heart Surgery

Alfred Blalock, while in Seattle to deliver the annual Alfred A. Strauss Lecture November 13 at the University of Washington School of Medicine, gave his views on the role of cardiovascular surgery. Dr. Blalock is director of the Department of Surgery at Johns Hopkins University and originator of the "blue baby" operation.

Dr. Blalock stated that while surgery to treat coronary artery disease is very useful in many patients, it remains unproved as the final solution to coronary disease. He further said that the chief value of surgery in coronary disease is relief of pain. He believes that the greatest goal surgery could achieve would be in finding the way to transplant organs from one person to another.

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Clark County Physicians Participate in Emergency Service

Because of the problem of finding a physician to cover emergency care for those people having no personal physician, an emergency physicians service has been set up in Vancouver. It was initiated primarily by the hospital staffs, as it had been the experience that sometimes four, five or six different physicians' telephone numbers would be called before finding one who was available.

In 1953, a panel system was introduced for voluntary participation of general practitioners and specialists who would like to serve on emergency call basis. This list is posted monthly at the two local hospitals and the county and isolation hospital.

Any patient arriving at a hospital as an emergency patient without a personal physician is assigned to the physician on emergency call for that 24 hour period. About 30 physicians out of the approximate total of 60 on Vancouver hospital staffs participate in this service. Therefore each physician is on 24 hour call once every 30 days.

According to Edward J. LaLonde, public relations committee chairman, the Clark County Medical Society feels that the best answer to physicians' care for emergencies is prior arrangements with personal physicians. However, the Society realizes that it is quite convenient for the hospitals to locate a physician for transients or tourists in need of medical care. If the patient is residing locally and is satisfied with the care received, quite commonly the result is a permanent patient-physician relationship.

Haagensen of New York Discusses Surgery for Breast Cancer

According to Cushman Haagensen, professor of clinical surgery at Columbia University, selection of patients who will benefit from operation is a vital part of planning the surgical attack of breast cancer. Dr. Haagensen spoke on surgery for breast cancer while in Seattle recently for a surgical demonstration on closed circuit TV at Harborview County Hospital.

Dr. Haagensen stated that in his own hospital in New York, not more than 50 per cent of women with breast cancer undergo surgery and that many are treated successfully with radiation. He emphasized that delay in seeking medical attention after discovery of symptoms of cancer is a major cause of death in breast cancer. The New York surgeon stated that women in the United States now wait an average of ten months, which is far too long.

Donald Thorp Heads Coast Society

Donald Thorp of Seattle was installed as president of the Pacific Coast Obstetrical and Gynecological Society at the group's recent annual meeting in Palm Springs. The Society's next annual meeting is slated for Seattle in October 1958.

U. W. Receives Grant From AEC

University of Washington School of Medicine has received a grant of $12,600 from the Atomic Energy Commission to help obtain specialized radiation equipment and teaching aids. This equipment will be used to stimulate study of radiology and uses of radioisotopes.

Seattle Surgeons Plan Annual Meeting

Herbert F. Mosely of Montreal, Quebec, will be guest speaker at the Annual Dinner and Clinic of the Seattle Surgical Society, which will be held in Seattle March 21 and 22, 1958. Main theme of the Clinics will be surgery of acute trauma.

Dr. Mosely is Hunterian Professor, Royal College of Surgeons of England and Assistant Professor of Surgery at McGill University Faculty of Medicine. He is widely known for his text books of surgery and orthopedics.

All members of the medical profession are invited to the Clinics and Dinner.

Series of Health Forums Being Presented in Vancouver

Much interest has been shown by Clark County residents in the four monthly health forums being presented under the sponsorship of Clark County Medical Society and *The Columbian* newspaper. The series of free public forums, first of its kind in Vancouver, began in November and will conclude in February.

Flu and its variations was discussed during the November meeting. The December session considered heart diseases. In January, the panelists will speak on surgery and anesthetics, and in February the topic will be cancer.

Members of the Society's public relations committee are in charge of program arrangements. They are: Edward LaLonde, committee chairman; M. R. Mongrain; Clyde Hutt and Robert Fitzgerald, Society president. A total of 16 of the county's approximately 70 physicians will participate in the forums.

Spokane County Health Officer Named

Ernest O. Ploeger, Jr., screening physician for the state department of public assistance, has been named Spokane county health officer to replace Arthur E. Lein who died last year. Dr. Ploeger took over his duties December 2. He was graduated from University of Oregon Medical School in 1953 and was a former staff physician at Edgecliff Sanatorium, Spokane.

Thrift Hanks Fills New Health Post

Thrift G. Hanks has been appointed to a new post of director of health and safety at the Boeing Airplane Co. headquarter offices in Seattle. Sherman W. Williamson, formerly assistant medical director, succeeds Dr. Hanks as Seattle-division medical director. Dr. Hanks has been with the firm since 1941, and Dr. Williamson since 1952.

Whitman County Medical Society

Thomas Carlisle, Seattle radiologist, was guest speaker at the November meeting of the Whitman County Medical Society in Pullman. Dr. Carlisle spoke on detection of cervical and uterine cancer in the doctor's office.

Whidbey Island Fetes Henry Carskadden

Henry Carskadden was honored recently for his 38 years of medical service to residents of Whidbey Island at a reception sponsored by the Oak Harbor Rotary Club. Dr. Carskadden retired from active practice early in December. He commented that he will now devote his time working to obtain a hospital for the Island.

New AMA Booklet Contains Medicolegal Assistance

What can a physician do to protect himself against a possible malpractice claim if a patient comes to him with what appears to be a fractured limb, but refuses x-ray examination or otherwise disregards the doctor's advice?

Suggestions regarding such a medicolegal problem and others are contained in a booklet which has been distributed to county medical societies by the Washington State Medical Association.

Entitled Medicolegal Forms with Legal Analysis, the booklet was prepared by the Law Department of the American Medical Association. The booklet contains text material, case citations and sample medicolegal forms to help physicians prevent unjust malpractice claims in their office and hospital practices. It is not intended, however, to substitute for individual legal counsel.

The material and forms in the booklet deal with such subjects as consent to operations, the patient's right to privacy, confidential communications, artificial insemination, autopsy, and the physician-patient relationship. Physicians and their attorneys may adapt the various authorization and consent forms to their own needs.

So that they may be available for reference, copies of the booklet have been sent to the medical libraries of King, Pierce and Spokane counties, and to the offices of executive secretaries or medical service bureaus in other counties.

Natural Childbirth Advocate Lectures in Seattle

Primary medical objection of Grantly Dick-Read, originator of the Read method of natural childbirth, to modern obstetrical methods which include routine interference in most births is the fact that the pain killers and induction methods "rob a woman of the most wonderful experience she can know."

Dr. Dick-Read, now retired after 45 years of practice in Great Britain, spoke in Seattle recently while on his second tour of the United States. His first tour was ten years ago. He remarked that he had found that natural childbirth had "spread amazingly" since his first visit.

The English physician has been advocating natural childbirth for 50 years and has written numerous books and articles on the subject.

While in Seattle, Dr. Dick-Read conducted two public lectures in the Health Sciences Auditorium of the University of Washington, and also spoke at a staff meeting at King County Hospital and at Virginia Mason Hospital. His visit was sponsored by the Association for Childbirth Education, a Seattle group for education of expectant mothers.

Kittitas Physicians Hear Talk on Heart

Kittitas County physicians met in the Ellensburg Golf and Country Club November 5 to hear Robert M. Levenson and J. C. Michel of Seattle discuss new information in the field of cardiology. The two Seattle physicians are members of the Washington State Heart Association's County Symposia Series Team. Subject of the session was Phantom Heart Disease.

Clark County Medical Society Elects Officers for 1958

Annual meeting of Clark County Medical Society was held at the Royal Oaks Country Club on Tuesday evening, December 3. Prior to the meeting a film, Edema In Congestive Heart Failure, was shown.

During the regular business meeting that followed dinner and social hour, the following members were elected to serve as officers for 1958: J. C. Brougher, President-Elect, Vancouver; T. E. Dillman, Treasurer, Vancouver; Emil Brooking, Secretary, Camas; H. L. Eldridge, Delegate, Washougal; I. C. Munger, Jr., Delegate, Vancouver; E. J. LaLonde, Alternate Delegate, Vancouver, and Dennis Seacat, Alternate Delegate, Vancouver.

Gerald W. Turley of Ridgefield, President-Elect, was installed as President for 1958 succeeding Robert E. Fitzgerald. Also during the business meeting, the following were elected to membership: Donald A. Champaign, Howard A. Haskins and Ted Casey.

Physicians Lead in Pledging Funds To Hospital Campaign in Puyallup

As reported on November 1, Puyallup Valley physicians had over-subscribed their goal of $50,000 to the Good Samaritan Hospital Campaign to raise $250,000 to enable the facility to move to more modern and more adequate headquarters. The report also showed that employees of the Good Samaritan and Lutheran Hospitals had also exceeded their quota.

The physicians' total pledge of $50,530 represented 101 per cent of their quota, and the employees' donations of $10,633.86 represented 126 per cent of their goal.

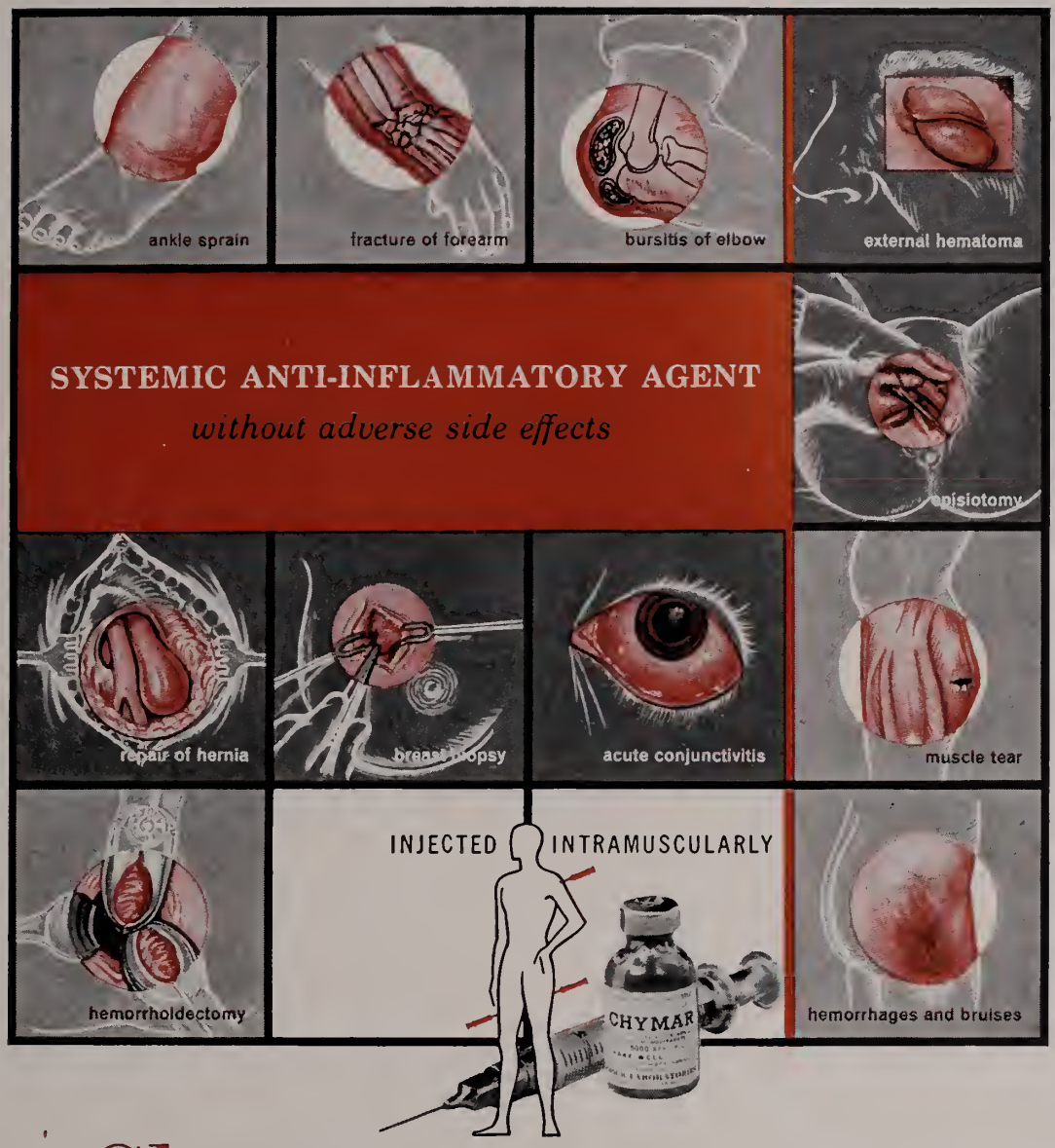
The fund drive has been undertaken to enable Good Samaritan Hospital to move into the building presently occupied by the Lutheran Hospital, thus making it possible for it to expand its services to the Valley's 30,000 residents. Both of the facilities are operated by the Lutheran Welfare Society.

A memorial gift of $20,000 has been given to the hospital fund drive by the widow of Warner M. Karshner, pioneer Puyallup Valley physician. It is planned to equip one surgery with the amount and provide a memorial plaque to Dr. Karshner. The pioneer physician was one of five doctors who originally banded together to provide a general hospital for Puyallup.

C. F. Hoffman of Woodland Honored

More than 200 persons gathered recently in the Woodland School for a testimonial dinner honoring C. J. Hoffmann and Mayor Earle Bryant, who had served the community for 50 years as physician and pharmacist, respectively.

Dr. Hoffman, who was graduated from the University of Oregon Medical School in 1907, moved to Woodland after practicing in LaCenter for one year. He was named the state's GP of the year in 1948 by Washington State Medical Association, and received his 50-year pin from the Association during the 1957 convention. Both Dr. Hoffman and Mayor Bryant were given plaques on behalf of the Chamber of Comerce.



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C. O. ARMSTRONG, M.D.

Death Takes C. O. Armstrong Former Northwest Medicine Trustee

Dr. Clifford Oakley Armstrong, 66, dean of the Moscow community's medical profession, died at 3 a.m. Monday (November 18, 1957) at Mesa, Arizona. With his wife, Maud, Dr. Armstrong had left Moscow early in October to spend the winter in the southwest. He became ill about midnight.

Born in Barneston, Nebraska, April 27, 1891, Dr. Armstrong came to Moscow in 1921 after receiving his doctor of medicine degree from the University of Illinois College of Medicine in 1919. He interned two years at Kings County Hospital, Brooklyn, New York, and came to Moscow to become associated with the late C. L. Gritman.

Active in medical and civic affairs, Dr. Armstrong retired from active practice in April following an illness early in 1957. At the time of his retirement, he was associated with John Ayers with offices in the Medical Professional Building. He had been associated with Dr. Gritman until 1933 and associated with Dr. Ayers in 1952. During that period he had served as contract physician for the University of Idaho, City of Moscow, Union Pacific and Northern Pacific Railroads and Washington Water Power Company.

His civic affiliations were numerous, including Rotary club as a past president; Elks lodge, as past exalted ruler; Masonic lodge and Eastern Star; Idaho Ad club; Episcopal church and numerous medical profession organizations. He was a member of the North Idaho district Medical Society; Idaho State Medical Association; American Medical Association; American College of Surgeons; Nu Sigma Nu (medical honorary) and was an associate member of the Spokane Surgical Society. He was a charter member of the board of directors of the Idaho Ad club.

Dr. Armstrong served organized medicine in a number of capacities. He was a member of the old Medical Examining Board from 1944 to 1949, and served as Chairman from 1947 to 1949; he was a member of the Medical Practice Act Committee; Armed Forces Advisory Committee; Trustee to NORTHWEST MEDICINE in 1951-52; a member of the Advisory Committee for Care of Indigents, 1953-54; and a member of the Advisory Committee for care of the Blind in 1954.

State Board of Medicine

A Temporary License was issued in November to Roosevelt Williams Kite, Sunnyside, Washington. Graduate of University of Kansas School of Medicine, 1933. Internship Providence Hospital, Pine Bluff, Arkansas, 1934. Granted TL-199, November 4. General. (Priest River or Newport, Washington.)

S. M. Poindexter, Boise, Chairman of the State Board of Medicine, attended a meeting of the Executive Committee, Federation of State Medical Boards in Philadelphia, during the AMA Interim Session in December.

The next regular meeting of the Board will be held in Boise, January 13-15, 1958.

Placard Issued on Exchange of Drugs

Idaho State Board of Pharmacy has sent every drugstore in the state a placard containing the following information:

NOTICE TO THE PUBLIC—
RETURN OR EXCHANGE OF DRUGS PROHIBITED

Drugs, medicines, sick room supplies, and items of personal hygiene shall not be accepted for return or exchange by any pharmacist or pharmacy after such drugs, medicines, sick room supplies or items of personal hygiene have been taken from the premises where sold, distributed or dispensed.

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SURGERY—Surgicol Technic, Two Weeks, Februory 24, Morch 10, Morch 24.
Surgery of Colon ond Rectum, One Week, Morch 3.
Bosic Principles in Generol Surgery, Two Weeks, April 7.
Treatment of Voricose Veins, Morch 3, April 7.
Gallobladder Surgery, Three Doys, Morch 31.
Surgery of Hernio, Three Doys, April 3.
Generol Surgery, Two Weeks, Moy 5; One Week, Februory 10.
Froctures & Troumotic Surgery, Two Weeks, Morch 17.
Breost & Thyroid Surgery, One Week, Moy 5.

GYNECOLOGY & OBSTETRICS—
Office & Operotive Gynecology, Two Weeks, Morch 17.
Voginol Approoch to Pelvic Surgery, One Week, Morch 10.
Generol & Surgicol Obstetrics, Two Weeks, Februory 24.

MEDICINE—Generol Review Course, Two Weeks, Moy 12.
Electrocordiogrophy & Heort Diseose, Two Weeks, Morch 17.
Gostroscopy & Gostroenterology, Two Weeks, Morch 3.
Hemotology, One Week, June 2.
Gostroenterology, Two Weeks, April 14.

PEDIATRICS—Two-Week Intensive Course, April 21.

DERMATOLOGY—Clinicol & Didoctic Course, Two Weeks, Moy 5.

RADIOLOGY—Diognostic X-Roy, Two Weeks, Morch 3.
Clinicol Uses of Rodioisotopes, Two Weeks, Moy 5.

UROLOGY—Two-Week Intensive Course, April 14.
Cystoscopy, Ten-Doy Procticol Course, by oppointment.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

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Former State Public Health Director Dies in Oakland, California

The many friends of Mr. L. J. Peterson were shocked to learn of his death on October 27 in the Providence Hospital, Oakland. "Pete" was 54 years of age and recently accepted a position with the Crippled Children's Bureau of the California Department of Public Health.



MR. L. J. PETERSON

"Pete" served public health and the residents of Idaho faithfully for more than 30 years in a number of capacities. Prior to moving to California, he had served as Administrator of the Idaho Elks Rehabilitation Center and was a guiding light in the construction of the new building which was dedicated in October.

He is survived by his widow and two children. Services were held in Boise on October 31.

"Pete" was a very good friend of medicine. He knew physicians in all sections of the state on a personal basis. He served an activity which he firmly believed to be good. He enjoyed the respect and admiration of thousands. He will be missed by all of us who knew him.

Meetings Held During November

On November 5, Quentin W. Mack, Boise, addressed the 15th Annual Meeting of the Idaho State Conference of Social Work on the subject of Disability Rehabilitation.

On November 7 Southeastern Idaho District Medical Society met with members of the Southeastern Idaho Bar Association in Pocatello to see the AMA American Bar Association film, The Medical Witness. Approximately 150 physicians and attorneys attended.

On November 9 the Association's Mediation and Public Relations Committee, chairmaned by Manley B. Shaw, met in Boise. Members who attended included E. V. Simison, Pocatello; Wallace Bond, Twin Falls; Robert S. McKean, Boise; Reuben C. Matson, Jerome; and Dauchy Migel of Idaho Falls.

On November 21 Southwestern Idaho District Medical Society had Otto C. Page, clinical instructor of medicine at University of Oregon School of Medicine, Portland, as speaker on the subject, Use of Oral Preparations in the Control of Diabetes. Approximately 50 attended. S. M. Poindexter, Boise, was named Chairman of the society's Nominating Committee.

W. L. Hubler Heads Diabetes Drive

W. L. Hubler of Caldwell conducted the community-wide diabetes detection campaign held during Diabetes Week, November 17-23. The campaign encouraged residents to go to their physicians to find out whether they were diabetics.

When oral tetracycline was administered to patients with various respiratory infections, including bronchial pneumonia, lobar pneumonia, acute and chronic bronchitis, asthmatic bronchitis, ". . . antibiotic effectiveness could be clearly demonstrated from somewhere between 64 per cent and 85 per cent of these cases. These figures include 10 cases of long-term therapy, in all of whom therapy was felt to be beneficial. . . . Evidence of toxicity, side reactions and allergic responses were gratifyingly milder and less frequent. . . ."[1]

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1. January, H. L.; White, C. S.; Stewart, D. B., and Massey, R. U.: Antibiotics Annual 1954-1955, New York, Medical Encyclopedia, Inc., 1955, p. 625.

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President, Hugh B. Fate, Fairbanks

ANNUAL MEETING
1958
Fairbanks

Secretary, Robert B. Wilkins, M.D., Anchorage



HUGH B. FATE, M.D.

Hugh B. Fate To Head ATMA for 1958

Information about Dr. Fate did not appear in the editorial section of the December issue because of unavoidable delay in receipt of copy.—Ed.

Hugh B. Fate is the choice of his 80 fellow members to direct the course of the youthful, growing Alaska Territorial Medical Association during the current challenging year. As a specialist in eye, ear, nose and throat disease, Dr. Fate is well acquainted with the middle ear disease and mastoiditis which is one of the greatest health problems now facing the physicians of Alaska.

After receiving his medical degree in 1935 from the College of Medical Evangelists, Loma Linda, California, he served his internship at Fresno County Hospital in California. Ten years following his graduation from medical school, he completed residency training in his specialty at a Detroit hospital. Another five years and Dr. Fate had added his name to the growing roster of physicians who found practice in the far north a stimulating experience. A ratio of one physician to approximately 2500 persons makes the Alaska physician's day a long one and his practice a demanding one.

In addition to a private practice in Fairbanks, Dr. Fate is E.E.N.T. consultant to the Alaska Department of Health, Alaska Native Health Service and Veterans Administration. To this crowded schedule he now adds the task of guiding his Association, a post well-earned by his keen interest and enthusiastic participation in organizational affairs.

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Patients with muscle spasm of the usual types demand relief first. Disipal fills this need. In sprains, strains, fibrositis, noninflammatory arthritic states and other musculoskeletal disorders, Disipal not only relieves the spasm, but alleviates the depression which so often accompanies pain of any type.

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Riker LOS ANGELES

THE AMERICAN MEDICAL ASSOCIATION

In . . .  Philadelphia

Philadelphia, host to AMA Clinical Session last month, lived up to its Quaker heritage with dignified but friendly welcome to convention visitors. Contrast with New York, locale of the Annual Session six months previously, was striking.

The meeting was well attended although registration figures did not equal those of the Seattle meeting a year ago. Physician registration at Seattle was 2,813, at Philadelphia 2,637. Traffic snarling snow storm which started during the evening of the first day and continued through the second may have had something to do with the differences. By Wednesday afternoon, traditional day out of the office for Philadelphia physicians, good sense seemed to indicate home and fireside, rather than a trip to Convention Hall. Activities of the House of Delegates were not hampered.

Lectures, motion pictures, color television, scientific and technical exhibits were housed in Philadelphia's cavernous Convention Hall, so huge that only a portion was needed for the AMA show. Facilities and arrangement were more than adequate.

Planned for Regional Participation

Plan for the mid-year AMA meetings is basically that of regional participation. They are scheduled in widely separated areas in order to give many physicians, not otherwise familiar with AMA activities, an opportunity to attend an AMA meeting. Speakers and panel participants are chosen largely from the area of the meeting. Subjects discussed are those particularly pertinent to clinical medicine. The Philadelphia meeting followed the plan.

Lectures included several subjects in the field of psychiatry, a number on heart and circulation, a few on digestive diseases and nutrition, a number on cancer and several on pediatric subjects. Trauma, late effects of radiation, poisoning, arthritis, thyroid disease, antibiotic resistant staphylococci, and allergy were included in the wide range of practical subjects presented.

Films from Northwest Shown

Motion picture program was drawn from sources more widely spread. There were films from Paris, Mexico, Canada, Australia and England. The West Coast was represented by three films. One of these was on fluid balance. It was produced by Belding H. Scribner of Seattle and Carl R. Hines of Chicago. Harkins, Sauvage and Vetto of Seattle contributed a film on direct hernia. A film on cholecystectomy and operative cholangiography was sent by Joel Baker and John Walker of Seattle.

Transatlantic conference by telephone connection between Convention Hall and Barnes Hall, London, was scheduled for the afternoon of December 4. Participants in the discussion on chemotherapy of cancer, with special reference to leukemia, were Leandro Tocantins and R. P. Custer of Philadelphia, J. H. Buchenal of New York, Sidney Farber of Boston, Emil Frei, Bethesda and Howard Skippper of Birmingham, Alabama. London participants were A. Dickson Wright, Alexander Haddow, Ronald Bodley-Scott, Eve Wiltshaw and John Wilkinson.

The Sheraton Hotel Ballroom was utilized for showing of "M. D. International," a color film to be used in the television program March of Medicine, and for presentation of the Westminster Choir of Princeton, New Jersey. The film was sponsored by Smith, Kline and French Laboratories, producers of the television series. The Westminster Choir was presented by Winthrop Laboratories as part of the series which included the Boston Symphony Orchestra during the Boston meeting and the Seattle Symphony during the 1956 meeting.

Scientific exhibits, as always, were carefully selected

(Continued on page 110)

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Romilar CF brings new comfort and ease to your patients with colds and other respiratory disorders by providing more complete symptomatic control. Romilar CF syrup combines the benefits of an antihistaminic, a decongestant, and an analgesic-antipyretic with the effective cough suppressant action of Romilar Hydrobromide* — the non-narcotic cough specific with codeine's antitussive effect but without codeine's side effects.

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Chlorpheniramine Maleate	1.25 mg
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(Continued from page 107)

for interest and educational value. These, also, were contributed for the most part by those in the Philadelphia area. The Northwest was not represented. A special exhibit on history of medicine in Philadelphia was a feature of the exhibit.

House of Delegates sessions were of more interest than usual at an interim session due to discussion of several controversial subjects. Even before the House convened it became apparent that fluoridation of public water supplies would create the most discussion. It did so, on the floor as well as in reference committee.

Fluoridation Issue Re-examined

Re-examination of the fluoridation issue was ordered by the House at the Seattle meeting with directive that findings be reported at the Philadelphia session. Numerous hearings have been held during the year by a special committee with members from the Council on Drugs and the Council on Foods and Nutrition. The committee produced a 27 page report which was presented to the Board of Trustees and transmitted to the House without comment from the Board. Conclusions expressed in the report were that fluoridation of water supplies to a level of one part per million has been established as a method of reducing dental caries, that since the 1951 statement, no evidence has been found that ingestion of such water is harmful to the general health and that fluoridation of water supplies should be regarded as a prophylactic measure for reducing tooth decay and is applicable where the water supply contains less than the equivalent of 1 part per million.

Debate, before the Reference Committee on Hygiene, Public Health and Industrial Health, started fairly early in the morning of the second day of the session and continued through most of the afternoon. Proponents of the measure included a number of public health officials as well as non-physician scientists and engineers brought to Philadelphia to testify. Opponents of fluoridation were mostly physicians in private practice.

The reference committee concluded that fluoridation of water supplies is a safe and practical method of re-

(Continued on page 112)

House of Delegates—*Facing Page*: 1. The House in Session. 2. Vice-Speaker Louis M. Orr reads a report. Speaker E. Vincent Askey is immediately behind him. 3. In the second row, Raymond L. White, Idaho; M. Shelby Jared, Washington; Jess W. Read, Washington; Alvia G. Young, Washington. 4. Cecil W. Clark of Cameron, Louisiana, receives the award of General Practitioner of the Year from E. S. Hamilton, Chairman of the Board of Trustees. Dr. Clark was given the award because of heroism displayed during the disaster caused by Hurricane Audrey, June 27. 5. Oregon delegates Archie C. Pitman and E. G. Chuinard. Next is John W. Cline, former president of AMA. 6. William A. Hyland of Michigan, chairman of a special committee to study the Heller Report, gives findings and recommendations to the House. 7. Alaska delegate, Milo Fritz of Anchorage, nearest camera. 3. John W. Green of California presents check for $143,043.25, California's contribution to the American Medical Education Foundation. Louis H. Bauer receives. 9. Mrs. Paul C. Craig, President of Woman's Auxiliary, speaks to the House.

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(Continued from page 110)

ducing incidence of dental caries during chlidhood, agreed with conclusions of the joint committee and recommended approval of the report. After spirited debate lasting almost an hour, the House registered unmistakable agreement with the recommendation of the reference committee.

Flu Vaccine and UMW Fund Considered

Unsatisfactory handling of distribution of influenza vaccine brought out a small flury of resolutions indicating widespread resentment. The house adopted a substitute resolution calling for the Board of Trustees to seek conferences, through already established committees, with a view to establishing a code of practices regulating future distribution of important therapeutic products.

Second only to fluoridation in interest was the continuing problem created by the United Mine Workers Retirement Fund. It was the subject of a vigorously worded resolution from the Colorado delegation.

The UMW Fund has established clinics and hospitals in a number of mining areas and wherever it has beneficiaries has tried to establish selected panels of physicians to render service to miners' families. Medical organizations, county, state and national have seen volation of the principle of free choice of physician in these actions and have attempted to reach agreement with the Fund to preserve the rights of patients. At the New York meeting in June 1957 the House adopted a carefully prepared document, "Guides to Relationships Between State and County Medical Societies and the United Mine Workers Welfare and Retirement Fund." The Colorado resolution accuses the Fund of disregarding the Guides and states that they have been disavowed by the medical director of the fund (Warren Draper, M.D.).

Colorado Resolution Adopted

The resolution was amended without changing its import. As adopted, it reads as follows:

"Whereas, The United Mine Workers of America Welfare and Retirement Fund has disregarded the 'Guides to Relationships Between State and County Medical Societies and the U.M.W.A. Welfare and Retirement Fund' which were adopted by this House of Delegates in New York in June, 1957; and

"Whereas, The Medical Director of that Fund has publicly disavowed these adopted principles and has publicly stated that his organization will not observe them; and

"Whereas, The Fund has, throughout the United States, arbitrarily further abrogated the right of the Fund's beneficiaries to a free choice of physicians and hospitals effective October 15, 1957; and

"Whereas, These activities of the Fund appear to be a part of a broad general plan to reduce the practice of medicine to a state of servility, against the public interest; and

"Whereas, All systems of medical care which deny patients their inalienable right to free choice of physician and hospital result in deterioration in the quality of medical care, therefore be it

"*Resolved*, That this House of Delegates condemns the current attitude and method of operation of the U.M.

(Continued on page 114)

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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(Continued from page 112)

W.A. Welfare and Retirement Fund as tending to lower the quality and availability of medical and hospital care to its beneficiaries; and be it further

"*Resolved*, That a broad educational program be instituted at once by the American Medical Association to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the U.M.W.A. Welfare and Retirement Fund' adopted by this House last June."

Heller Report of Great Interest

Third subject of more than ordinary interest was the Heller Report. This is a comprehensive communication from a business management firm, Robert Heller and Associates of Cleveland, after detailed investigation of organization and operation of the American Medical Association. The report from the Heller organization was received a short time before the 1957 New York meeting. It has been studied by the Board of Trustees and by a special committee. Chairman of the study committee, William A. Hyland of Michigan, presented analysis of the study committee to the House.

In order to understand implications of the Heller Report, it is necessary to recall that government of the American Medical Association, like that of the United Stats, has three branches—legislative, executive and judicial. Supreme Court of the Medical Association is the Judicial Council to which may be appealed decisions of appropriate bodies of state associations which in turn hear appeals from county society decisions. Executive function of the Association rests in the Board of Trustees, subservient to policy decisions of the House but with final authority over management and fiscal matters. The House of Delegates is a unicameral legislative body in which representation is proportionate to state association membership. The House alone has authority to establish policy for the American Medical Association and elects officers, including members of the Board of Trustees.

Only certain portions of the Heller Report, affecting policy, were discussed by the House. Many of the recommendations made by the business management analysts concerned managerial structure and operation of the headquarters building at 535 North Dearborn Street, Chicago. Some of these have already been put into operation by the Board of Trustees but some have been disregarded. The Heller organization recommended sale of the present headquarters building and erection of a new building on less expensive land. Careful study by the Board of Trustees resulted in decision to rehabilitate and modernize the present building instead. Other administrative changes included plans for revitalizing the popular magazine *Today's Health*, some changes in responsibility of the Editor of *JAMA* and plans for the Standard Nomenclature of Diseases and Operations.

Reference Committee Recommendations Adopted

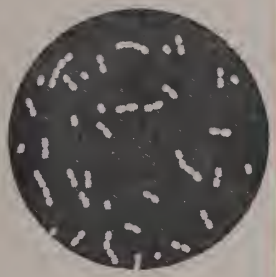
After agreeing that the above administrative items need not be considered, the House adopted the following recommendations of the Reference Committee on

(Continued on page 116)











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consisting of cases of acute bacterial pharyngitis — including scarlet fever — acute sinusitis, laryngotracheobronchitis, pneumonia

"... excellent results [were obtained] with tetracycline in the treatment of pneumococcic and hemolytic streptococcic infections.... Adverse symptoms, mainly gastrointestinal, due to the administration of tetracycline, were minimal."[1]

1. Wood, W. S.; Kipnis, G. P.; Spies, H. W.; Dowling, H. F.; Lepper, M. H., and Jackson, G. F.: A.M.A. Arch. Int. Med. *94*:351 (Sept.) 1954.

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(Continued from page 114)

Amendments to the Constitution on Bylaws, to which the Hyland Committee Report was assigned:

1. We concur in the recommendation that the office of Vice-President be continued as an elective office.

2. We concur in the recommendation that the offices of Secretary and Treasurer be combined into one office to be known as Secretary-Treasurer, that office to be selected by the Board of Trustees from one of its number.

3. We concur in the recommendation that the duties of Secretary-Treasurer be separated from those of Executive Vice-President.

4. In regard to recommendation No. 4 we concur that the office of General Manager be discontinued, that the office of Executive Vice-President be established and that the position of Executive Vice-President be filled by appointment by the Board of Trustees. We further recommend that the Executive Vice-President be the chief staff executive of the Association.

5. In regard to recommendation No. 5, we agree that the Council on Medical Education and Hospitals and the Council on Medical Service should continue in all respects as standing committees of the House of Delegates as they presently are. We recommend however that the administrative direction of these Councils be vested in the Executive Vice-President.

6. We concur in the recommendation that the voting members of the Board of Trustees be limited to eleven, namely, the nine elected Trustees, the President and the President-Elect. The Vice-President and the Speaker and Vice-Speaker of the House of Delegates shall attend all meetings, including executive sessions, of the Board with right of discussion but without the right to vote.

7. In regard to recommendation No. 7 based on the unanimous expression of opinion of those who appeared before us, your committee recommends disapproval of election of Trustees from each of the nine physician-population regions proposed in the Heller Report.

(Continued on page 120)

REFERENCE COMMITTEES—*Facing Page*: 1. Medical Education and Hospitals. E. L. Turner, Secretary of the Council on Medical Education and Hospitals, addresses the Committee: Grover C. Penberthy, Willard A. Wright, Jay J. Crane, Francis C. Coleman, Phillip S. Foisie. 2. Reports of Officers. Gunnar Gundersen, President-Elect, appears before the committee: Jess W. Read, Durward G. Hall, Elmer P. Weigel (back to camera), Dr. Gundersen, W. Linwood Ball. 3. Amendments to Constituion and Bylaws. William A. Hyland reports the findings of his committee to study the Heller report: Leopold H. Frazer, Dr. Hyland, William D. Stovall, George S. Klump, Kenneth C. Sawyer, Millard D. Hill. 4. Legislation and Public Relations. Daniel H. Bee, a delegate from Pennsylvania speaking: Dan C. Ogle, Paul A. Davis, Percy E. Hopkins, Eugene F. Hoffman, M. Shelby Jared. 5. Insurance and Medical Service, Thurman B. Givan, Milford O. Rouse, William F. Costello, R. T. Johnstone, Thomas McCreary. 6. Hygiene, Public Health and Industrial Health. Edward P. Flood, Henry F. Howe, Raymond T. Holden, William F. Brennan, Cyril J. Attwood. 7. Miscellaneous Business. George F. Gsell, Eugene Pendergrass, Willis H. Huron, Carl A. Lincke, Frank A. MacDonald. 8. Reports of Board of Trustees and Secretary. James P. Hammond, Harry L. Arnold, Jr., Elmer G. Shelley, Dwight L. Wilbur, Wendell C. Stover.



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(Continued from page 116)

8. We concur in the recommendation that the office of Assistant Executive Vice-President be established and that the office of Assistant Secretary be discontinued.

9. We concur in the recommendation that the Committee on Federal Medical Services should not be a part of the Council on National Defense. We recommend that this committee be retained as a Committee of the Council on Medical Service as it is at the present time.

10. In regard to recommendation No. 10, your reference committee recommends that a joint and continuing committee of 6 be appointed, 3 from the Board of Trustees and 3 from the House of Delegates, whose duties shall be to consider:

(a) Redefinition of the central concept of AMA objectives and basic programs;
(b) Placing more emphasis on scientific activities;
(c) Taking the lead in creating more cohesion among national medical societies; and
(d) Studying socio-economic problems.

Your reference committee recognizes that the recommendations which have been adopted will necessitate changes in our Constitution and Bylaws. Your committee therefore recommends that the recommendations which have been accepted be referred to the Council on Constitution and Bylaws with a request to draft appropriate amendments for the consideration of this House at the San Francisco, 1958 session.

Disability Guide Praised

Idaho should take pride in the comment of the reference committee which considered the newly prepared, "Guide to the Evaluation of Permanent Impairment of the Extremities and Back." Quentin Mack, of Boise, has made substantial contribution to the guide, primarily designed to aid physicians in estimating disability of those making claims under social security provisions but destined to have much wider application. The reference committee said, "Your reference committee wholeheartedly agrees with the Board that the Committee on Medical Rating of Physical Impairment has done a superb job on this difficult subject and looks forward with pleasure to the publication of such guides in the *Journal of the American Medical Association.*"

It was reported that the guide will be published in the form of a pocket-size book after it has been made available for trial by publishing in the *Journal.*

Forand Bill Condemned

The Forand Bill, H. R. 9467, was condemned as a type of socialized medicine and the Board of Trustees was commended for taking prompt action in opposing its passage. The bill would amend the social security laws to provide that the federal government pay hospital and medical-surgical bills for certain beneficiaries. Dangers in the bill were also pointed out by AMA President, David Allman in his address to the house.

House Handles Large Volume of Work

A surprising volume of work was handled by the House. Actions in addition to those mentioned above included:

Approval of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group."

Establishment of a new committee to study neurological disorders in industry.

Approval of establishment of American Medical Research Foundation.

Ordering informational material sent to alternate delegates as well as delegates.

Declaring it proper for physicians to join in partnership or group practice so long as ownership and control remained in the hands of licensed physicians.

Authorizing conferences with third parties to determine policies and general principles.

Approving a conference on veterans' medical care.

Asking the Board of Trustees to study possibility of the Association providing funds for a study, by a qualified private agency, of the social security system.

Reaffirming support of Jenkins-Keogh Bill.

Recommending overhaul of the medical department of Civil Aeronautics Commission, with a medical director responsible to the CAA Administrator.

Scientific Exhibits—*Facing Page:* The scientific and technical exhibits at the Philadelphia session had wide attendance and invoked great interest among those visiting the booths. Pictured here are just a few of the great number of exhibits, including the special exhibit on the history of medicine in Philadelphia.




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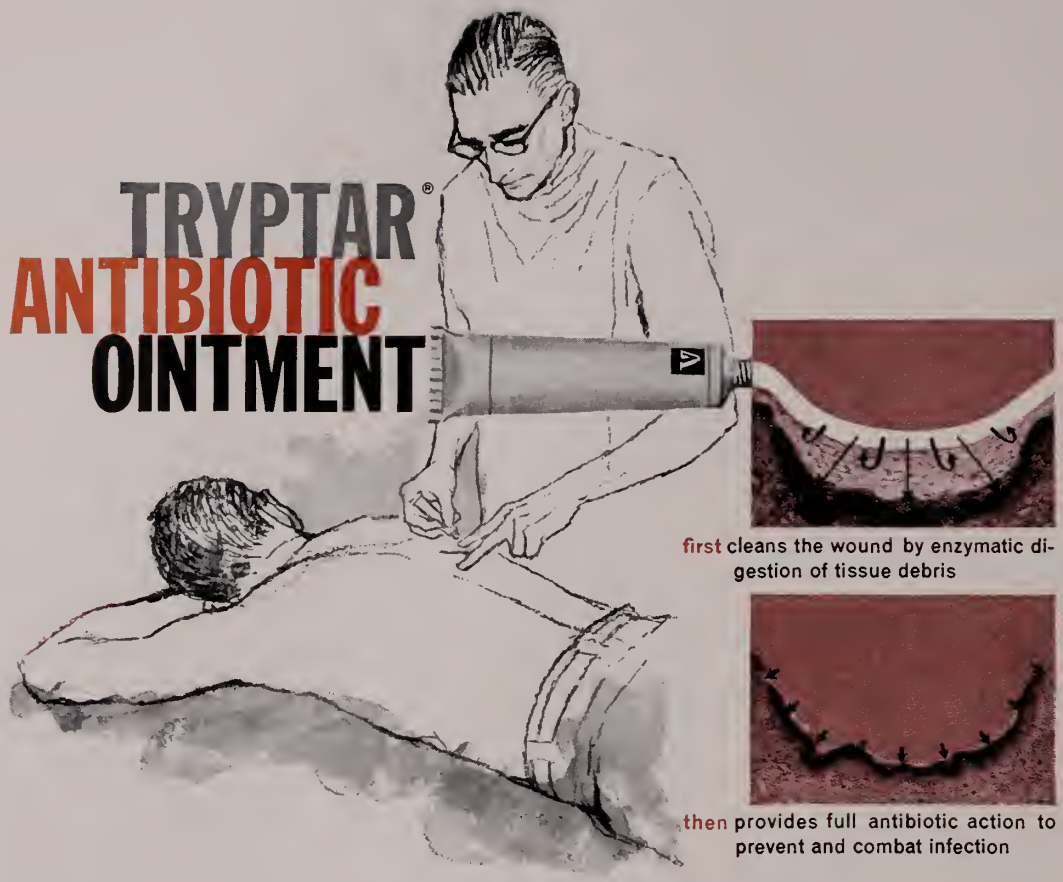




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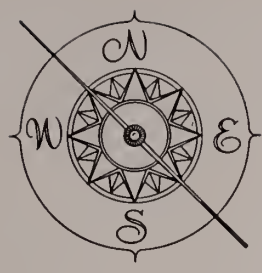
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BOOKS

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—Thomas Carlyle

RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Management of Complications in Eye Surgery: Avoidance of Pitfalls and Treatment of Difficult Situations in Ophthalmologic Operations. Edited by R. M. Fasanella, M.D., Chairman of Section of Oph- pp. Illustrated. Price $16.00. W. B. Saunders Company, Philadelphia and London. 1957.

A Text-Book of X-Ray Diagnosis By British Authors in Four Volumes. Volume I. Ed. 3. Edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., Director, X-ray Diagnostic Department, University College Hospital, London; and Peter Kerley, C.V.O., C.B.E., M.D., F.R.C.P., F.F.R., D.M.R.E., Director, X-ray Department, Westminster Hospital; Radiologist, Royal Chest Hospital, London. 521 pp. 533 illustrations. Price $18.00. W. B. Saunders Company, Philadelphia and London. 1957.

Roentgen Diagnosis of Abdominal Tumors in Childhood. By Charles M. Nice, Jr., M.D., Ph.D.; Alexander R. Margulis, M.D.; and Leo G. Rigler, M.D., All from the Department of Radiology, University of Minnesota Medical School, Minneapolis, Minnesota. 75 pp. Illustrated. Price $4.00. Charles C Thomas, Springfield, Ill. 1957.

Fun Comes First for Blind Slow-Learners. By Mildred Blake Huffman, B. E., M.A., Primary Teacher, California School for the Blind, Berkeley, California; with a Foreword by Samuel A. Kirk, Ph.D., Director, Institute for Research on Exceptional Children, University of Illinois, Urbana, Illinois. 157 pp. Illustrated. Price $5.00. Charles C Thomas, Springfield, Ill. 1957.

Tuberculosis—Every Physician's Problem. By J. Arthur Myers, M.D., Professor of Internal Medicine and Public Health, Medical and Graduate Schools, University of Minnesota, Minneapolis, Minnesota. 290 pp. Illustrated. Price $7.50. Charles C Thomas, Springfield, Ill. 1957.

Recovery from Schizophrenia; The Roland Method. By John Eisele Davis, Sc.D., President, Association for Physical and Mental Rehabilitation; Formerly Chief, Corrective Therapy, Veterans Administration. 161 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

Microtechniques of Clinical Chemistry for the Routine Laboratory. By Samuel Natelson, Sc.M., Ph.D., Chairman, Department of Biochemistry, Rockford Memorial Hospital, Rockford, Illinois. 484 pp. Illustrated. Price $11.00. Charles C Thomas, Springfield, Ill. 1957.

Anatomies of Pain. By K. D. Keele, M.D., F.R.C.P., Consultant Physician, Ashford Hospital and Staines Hospital, England. 206 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1957.

Advances in Radiobiology: Proceedings of the Fifth International Conference on Radiobiology Held in Stockholm on 15th-19th August, 1956. Edited by George Carl de Hevesy, Arne Gunnar Forssberg, and John D. Abbatt. 503 pp. Illustrated. Price $15.50. Charles C Thomas, Springfield, Ill. 1957.

Clinical Electrocardiography—The Spatial Vector Approach. By Robert P. Grant, M.D., National Heart Institute, National Institutes of Health, Bethesda, Maryland. 225 pp. Illustrated. Price $7.50. Blakiston Division, McGraw-Hill Book Company, Inc., New York. 1957.

Deafness, Mutism and Mental Deficiency in Children. By Louis Minski, M.D., F.R.C.P., D.P.M., Consultant Psychiatrist, Royal National Throat, Nose and Ear Hospital, Gray Inn Road; Associate Psychiatrist, St. George's Hospital, Hyde Park Corner. 82 pp. Illustrated. Price $3.75. Philosophical Library Inc., New York. 1957.

(Continued on page 124)

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(Continued from page 123)

Liver-Brain Relationships. By Ian A. Brown, M.D., Ph.D., Associate Professor of Neurology, Division of Neurology, Department of Neurology and Psychiatry, University of Minnesota. 198 pp. Illustrated. Charles C Thomas, Springfield, Ill. 1957.

Surgery in World War II: Ophthalmology and Otolaryngology. Prepared by Colonel John Boyd Coates, Jr., MC, Editor in Chief; M. Elliott Randolph, M.D., Editor for Ophthalmology; Norton Canfield, M.D., Editor for Otolaryngology; and Elizabeth M. McFetridge, M.A., Associate Editor. 605 pp. Illustrated. Price $5.00. Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. 1957.

Studies in Fertility 1956—Including papers read at the Conference of the Society for Study of Fertility, London. 1956—Volume VIII of the Proceedings of the Society. Edited by R. G. Harrison, M.A., D.M., Derby Professor of Anatomy in the University of Liverpool. 138 pp. Illustrated. Price $5.00. Charles C Thomas, Springfield, Ill. 1957.

Allergy in Pediatric Practice. By William B. Sherman, M.D., Associate Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons; Associate Attending Physician, Presbyterian Hospital; Attending Physician, Roosevelt Hospital, New York, N.Y.; and Walter R. Kessler, M.D., Ph.D., Instructor in Pediatrics, Columbia University College of Physicians and Surgeons; Assistant Pediatrician, Babies Hospital; Assistant Attending Physician, Roosevelt Hospital, New York, N.Y. 296 pp. Illustrated. Price $9.25. C. V. Mosby Company, St. Louis. 1957.

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Cerebral Lipidoses—A Symposium convened in Antwerp, Belgium, July 1955, Chairman, L. van Bogaert, M.D., Director, Department of Neurology and Neuropathology, Institut Bunge, Antwerp. Edited by J. N. Cumings, M.D., F.R.C.P., Clinical Pathologist, The National Hospital; Director, Department of Biochemical Research, Institute of Neurology, London; and A. Lowenthal, M.D., Department of Neurology and Neuro-Chemical Research, Institut Bunge, Antwerp. 212 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

Inhalation Analgesia in Childbirth. By E. H. Seward, M.A., D.M. (Oxon.), F.F.A.R.C.S., D.Obst. R.C.O.G., Consultant Anaesthetist, High Wycombe Group of Hospitals; Formerly, Research Assistant, Nuffield Department ofAnaesthetics, University of Oxford; and R. Bryce-Smith, M.A., D.M. (Oxon.), F.F.A.R.C.S., First Assistant, Nuffield Department of Anaesthetics, University of Oxford; Formerly Assistant Professor of Anaesthesia, Western Reserve University, Cleveland, Ohio. 58 pp. Price $1.50. Charles C Thomas, Springfield, Ill. 1957.

Child Psychiatry. Ed. 3. By Leo Kanner, M.D., Professor of Child Psychiatry, The Johns Hopkins University; Director, Children's Psychiatric Service, The Johns Hopkins Hospital, Baltimore, Maryland. With Prefaces by John C. Whitehorn, M.D., Henry Phipps Professor of Psychiatry, The Johns Hopkins University; Adolf Meyer, M.D., LL.D., Henry Phipps Professor Emeritus of Psychiatry, The Johns Hopkins University; and Edwards A. Park, M.D., Professor Emeritus of Pediatrics, The Johns Hopkins University, 777 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

Practical Use of Office Laboratory and X-Ray Including Electrocardiograph. By Paul Williamson, M.D., 323 pp. Illustrated. Price $10.75. The C. V. Mosby Co., St. Louis. 1957.

Ciba Foundation Colloquia on Endocrinology, Vol. II: Hormones in Blood. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Elaine C. P. Millar, A.H.-W.C., A.R.I.C. 416 pp. Price $9.00. Little, Brown and Company, Boston. 1957.

REVIEWS

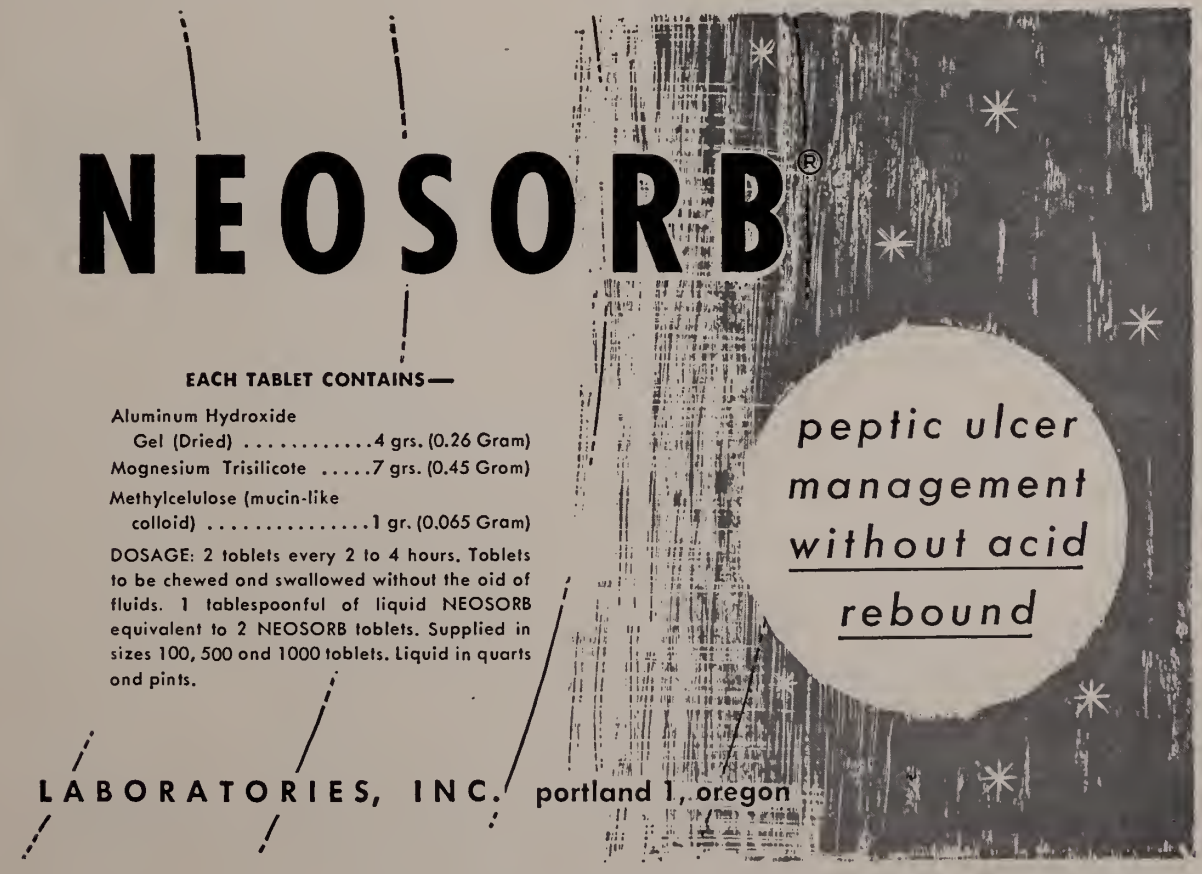
Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlamert, Librorian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library oppreciates, but does not demond, reimbursement for postage.

THE GLAUCOMAS, Ed. 2. By H. Saul Sugar, M.D., Assistant Professor in Ophthalmology, Wayne University Medical School, Detroit. 516 pp. Illustrated. Price $13.50. Hoeber-Harper, New York. 1957.

Sugar's book has been revised and enlarged. Descriptive illustrations have been added to the new second edition.

A chapter on tonography of practical value to the practicing ophthalmologist has been added. In addition, medical management of the primary glaucomas has been arranged into one section, just preceding

(Continued on page 127)





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(Continued from page 125)
the section on surgical treatment of glaucoma, making for ease in reference.

The anatomy and histology chapters have been expanded to include some of the newer concepts of the anatomy of the angle.

The tonometry and tonography sections include copies of essential tables such as the 1948, 1954 and 1955 tonometer scales from the Committee on Tonometry of the American Academy of Ophthalmology and Otolaryngology, as well as Grant's tables for tonography.

Perimetry, gonioscopy and diagnostic technics are presented in detail in separate chapters.

As in the first addition, there are numerous references to the literature with an excellent bibliography following each chapter.

Sugar's "The Glaucomas" remains the outstanding standard text on glaucoma and this new revised and enlarged edition should replace the earlier edition on the ophthalmologist's shelf.

Wood Lyda, M.D.

HOST-PARASITE RELATIONSHIPS IN LIVING CELLS: A Symposium Sponsored by James W. McLaughlin Fellowship Program, University of Texas, Medical Branch, Galveston, Texas, April 27, 1956. Compiled and edited by Harriet M. Felton, M.D. 245 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Ill. 1957.

The outstanding feature of this small book is a superb discussion by Professor Robert A. Good of the University of Minnesota of the evidence relating macrophages, lymphocytes, and plasma cells to antibody formation and hypersenstivities. His own impressive recent contributions, based on his creditable earlier research on animals, has been focused chiefly on study of patients with disturbances of plasma cells and of gamma globulin metabolism.

Drs. John H. Hanks, R. Dulbecco, and Rene J. Dubos provide excellent brief discussions of the metabolic and biological relationships involved in the relationship of tissue cells to their intracellular parasites with emphasis on viruses and on mycobacteria.

Discussions of certain topics such as electron microscopy of cells are too abbreviated to be of much value. The rather weighty discussion is pleasantly leavened by the delightful personality of Dr. Hanks, who at one point, for example, comments: "Points of view are little mental mountains which we all climb at times to scout the land, never knowing how long we are going to stay."

Charles A. Evans, M.D.

MECHANISMS OF HYPERTENSION WITH A CONSIDERATION OF ATHEROSCLEROSIS. By Henry Alfred Schroeder, M.D., Associate Professor of Medicine and Director, Hypertension Division, Department of Internal Medicine, Washington University of Medicine, St. Louis. 379 pp. Illustrated. Price $9.00. Charles C Thomas, Springfield, Ill. 1957.

This book of 379 pages is broken down into some of the many known causes of hypertension. It devotes approximately half of its contents to a discourse on the complexities of the disease and the relative importance of basic factors, neurogenic factors, nepherogenic mechanism, and the conversion from neurogenic to nepherogenic. It then digresses for fifty pages on the importance of trace metals in cardiovascular disease, and thereafter spends approximately the same amount of space commenting on the mechanisms in atherosclerosis. Finally, treatment of hypertension and atherosclerosis is commented on in the last fifty pages. A small banner on the cover indicates that this is from the American Lecture Series, and one indeed has the impression that a collection of lectures was amalgamated, made to fit inside a binding, stamped "Mechanisms of Hypertension" and hence, forwarded to the public. The author is a man of vast knowledge concerning hypertension, and a great many of the known interlocking and puzzling causes of this disease are commented on in succinct form. The author indeed points out that the subject is a state of flux and much remains to be done, and that he merely wishes to arouse our interest and lead us to think further; he does this well. This volume would be more aptly entitled "Thoughts on the Mechanisms of Hypertension." There are some very good illustrations and simple graphs, and pertinent tables and formulas which are in discord with such esoteric information as the amount of chromium in the kidney tissue of twelve Africans, whose ages are given, and furthermore, whose tissues were preserved in formalin. Such information hardly fits the cover which pronounces that "the patient is foremost in mind through the book." This volume is for thinkers interested in hypertension and willing to sit through a course of lectures which refresh and stimulate the mind as to some of the many causes and treatments of hypertension and atherosclerosis.

Jean C. Michel, M.D.

EXTENSILE EXPOSURE. Ed. 2. By Arnold K. Henry, M.B., Dublin; M.Ch. (Hon.), Trinity College, Dublin, and Cairo; F.R.C.S.I.: Chevalier de la Legion d'Honneur; Emeritus Professor of Clinical Surgery in University of Egypt; Professor of Anatomy in Royal College of Surgeons, Ireland. 320 pp. Illustrated. Price $10.00. The Williams and Wilkins Co., Baltimore. 1957.

To those who are acquainted with Henry's earlier books, called "Extensile Exposure Applied to Limb Surgery" of 1946, and "Exposures of Long Bones" of 1927, it may be said that the present edition of Extensile Exposures is primarily an enlargement of the 1946 edition to include descriptions of exposures of the front and side of the neck, the vertebral artery, the thorax from the root of the neck, the posterior cervical rami, and certain approaches of the chest and hypogastrium. The material in regard to the extensile exposure of the extremities is largely unchanged in the present edition.

Anyone not acquainted with Professor Henry's writings will find a rare treat in this last edition. It is urged that every beginner carefully read the preface to the second and first edition and introduction before starting to read the anatomical descriptions. Dr. Henry consciously tries to avoid usual anatomical terms because of confusion between different systems of anatomical nomenclature. His very apt use of terms such as "half-sleeve," "loop-holes," and "satellite" are very descriptive terms when one understands their meaning. By extensile, the author means an approach that may reach out or be extended from the original incision to extend into a greater exposure as circumstances may arise at surgery. His exposures in regard to the long bones have long been known for their usefulness in this regard. The written description is masterful and gives stage-by-stage a manner in which important structures are encountered and identified in each exposure. The illustrations are definitely secondary to the written word.

I heartily recommend Dr. Henry's latest book as excellent reading, not only in immediate preparation for an unaccustomed surgical procedure, but also as entertaining reading for anyone who enjoys masterly verbal depiction.

J. Irving Tuell, M.D.

BEDSIDE DIAGNOSIS. Ed. 4. By Charles Seward, M.D., F.R.C.P. (Edin.). With a foreword by Lord Cohen of Birkenhead, M.D., D.Sc., LL.D., F.R.C.P., F.A.C.P., F.F.R., Professor of Medicine, University of Liverpool. 429 pp. Price $5.00. The Williams and Wilkins Company. 1957.

This book has been written by a British general physician for the medical student and the doctor. In this fourth edition there has been revision of over half of the 430 pages. Descriptions of newly recognized conditions have been included. Using symptoms and signs, the most likely cause of disease can be determined. Each chapter deals with specific symptoms and starts with a synopsis of causes. This book can be of great help in arriving at a diagnosis. Treatment is not discussed. The last chapter is on normal values and concludes with notes on the interpretation of these values. This handbook has proven very popular and is one which any physician will find convenient to use.

Bertram L. Trelstad, M.D.

(Continued on page 130)



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Folic Acid	0.09	mg.
Niacinamide	37.5	mg.
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Biotin	2.5	mcg.
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Vitamin E	2.5	mg.
Choline Bitartrate	100.0	mg.
L-Lysine Monohydrochloride	37.5	mg.
Inositol	12.5	mg.
Betaine Hydrochloride	25.0	mg.
Pancreatin	24.3	mg.
Pepsin	24.3	mg.
Bile Acids Mixed Oxidized	6.25	mg.
Glycine (Aminoacetic Acid NF)	12.5	mg.
Iron (Ferrous Sulfate, Dried)	5.0	mg.
Copper	0.00017	mg.
Iodine	0.04	mg.
Calcium	70.0	mg.
Manganese	0.5	mg.
Potassium	2.5	mg.
Magnesium	2.5	mg.
Zinc	0.38	mg.
Molybdenum	0.025	mg.

(Continued from page 127)

THE MENTALLY ILL CHILD: A Guide for Parents. By Steven B. Getz, Ph.D., School Psychologist, California School for the Deaf, Berkeley, California; and Elizabeth Lodge Rees, M.D., Fellow of American Academy of Pediatrics, Hayward, California. 88 pp. Price $3.50. Charles C Thomas, Springfield, Ill. 1957.

Dr. Getz, a psychologist, and Dr. Rees, a pediatrician, undertook the very laudable task of composing a manual for the parents of the mentally ill child. Their intent to furnish information regarding diagnosis, treatment and home management of the young patient as well as to lend support to the worried elders by answering anticipated questions is offered in 65 pages. Brevity, clarity of content and simplicity of style are of course mandatory for a text designed for lay consumption. Unfortunately, the authors carried that endeavor frequently to the point of misleading ambiguity and confusing deletions in the subject matter and licentious neglect of expression and sentence structure. In the second chapter this "Guide for Parents" tells its presumably anxious readers of former child sacrifices, infanticide, abandonment of unwanted babies, destruction of imperfect children, infant mortality, etc., a not too tactful historical introduction for a troubled father and mother. Yet, there is a good deal in this small volume which is of value and which suggests the authors' good will and honest efforts. The pages suggest, however, that a book with the title "The Mentally Ill Child" had perhaps better be written by specialists in the field than by a psychologist who is neither a psychiatrist nor a neurologist and by a pediatrician who is none of the three.

Gert Heilbrunn, M.D.

STEDMAN'S MEDICAL DICTIONARY of Words Used in Medicine with Derivations and Pronunciations Including Dental, Veterinary, Chemical, Botanical, and other Special Terms; Anatomical Tables of Titles in General Use, the Terms Sanctioned by Basle Anatomical Convention; New British Anatomical Nomenclature; Nomina Anatomica, Revised by the Fifth International Nomenclature Congress of Anatomists; Pharceutical Preparations Official in U.S. and British Pharmacopoeias or Contained in National Formulary; Biographical Sketches of Figures in History of Medicine. Ed. 19, revised. Edited by Norman Burke Taylor, V.D., M.D., F.R.S.C., F.R.C.S. (Edin.) F.R.C.P. (Can.), M.R.C.S. (Lon.), University of Western Ontario and formerly of the University of Toronto; in Collaboration with Lieut. Col. Allen Ellsworth Taylor, D.S.O., M.A., Classical Editor. 1656 pp. Price $12.50. The Williams & Wilkins Company, Baltimore. 1957.

This dictionary has been thoroughly revised. Such a change may mean much for the reader. It does, in this instance. The valuable derivations are maintained, because citizenship of words is often neglected. Increase of vocabularly is obvious for the book is much larger. There is greater wealth of definitions, clearly and cleanly stated. The reader will be surprised to find how few words are needed to define a subject, and will be delighted to find definitions shorn of gabbling, extraneous wording. It is a pleasure to use this larger sized book with its invigorating expressions.

Purman Dorman, M.D.

MICROTECHNIQUES OF CLINICAL CHEMISTRY FOR THE ROUTINE LABORATORY. By Samuel Natelson, Sc.M., Ph.D., Chairman, Department of Biochemistry, Rockford Memorial Hospital, Rockford, Ill. 484 pp. Illustrated. Price $11.00. Charles C Thomas, Springfield, Ill. 1957.

The practice experience of a pioneer in the field of micro techniques, who has successfully established usable methods in a wide variety of chemical tests, is depicted in this book. Pictorial illustrations and diagrams add to the ease of interpretation and understanding of the context. A very helpful adjunct for the novitiate is the inclusion of references to the sources from which the specialized equipment and glassware may be obtained commercially. Advantages and disadvantages of certain types of instruments are described.

Dr. Natelson takes the reader from the principles utilized in micro chemistry through the technique of sampling the small quantity of specimen to the methodology in the various tests. An appendix discusses instrumentation, evaluation of accuracy and precision in methodology, normal values and the



application of chelate formation in clinical chemistry.

Whether or not one always agrees with the author's choice of method for a particular determination, this book will be of invaluable help to the clinical pathologist and clinical chemist interested in introducing micro techniques as routine procedures in the laboratory.

S. A. Creighton, M.D.

NEW RESEARCH TECHNIQUES OF NEUROANATOMY: A Symposium Sponsored by the National Multiple Sclerosis Society. Edited by William F. Windel, Ph.D., Sc.,D., Chief, Laboratory of Neuroanatomical Sciences, National Institute of Neurological Diseases and Blindness, National Institutes of Health, Bethesda, Maryland. Foreword by Frederick L. Stone, Ph.D., Director, Medical and Scientific Department, National Multiple Sclerosis Society, New York, N. Y. 98 pp. Illustrated. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

This book provides a brief look into some of the newer techniques used in neuroanatomy. It would be of particular value to the neurologist or neurosurgeon who is interested in keeping in touch with advances in this particular field, and would be of interest to the general pathologist who wants a short summary of methods used in tissue study.

The book is divided into sections, each by a different author, each providing a brief summary of the technique used, results expected, and future hopes in several fields of tissue research. A good review of electron microscopy in the field of neuroanatomy is provided, and it indicates that in the few years this technique has been used, much new knowledge has already been added to the field of neuroanatomy. The classic example is that of the Golgi apparatus—a finding that has evoked much discussion in the past. This has now been found to be an artifact by use of the electron microscope, but it has also complicated the problem more in that it indicated that the Golgi apparatus delineated the position and configuration of a complex system of membranes and vesicles which are not completely understood.

In addition, newer techniques in silver impregnation of degenerating axones are discussed, and selective silver impregnation of synaptic endings as well as the results of tissue culture studies of neural tissue. There is also a chapter discussing the variability of blood flow to different parts of the brain and brain stem.

Discussion is also presented of the cholinesterases and histological chemistry of the nervous system.

All in all, this is a very good book. It can be read rapidly, in a period of an hour, and will give anyone interested in this field a short view of advances that are being made by the application of the newer techniques in the field of neuroanatomy.

John R. Mullins, M.D.

TECHNIQUE OF FLUID BALANCE: PRINCIPLES AND MANAGEMENT OF WATER AND ELECTROLYTE THERAPY. By Geoffrey H. Tovey, M.D., Director, South West Regional Blood Transfusion Service, Southmead, Bristol; Lecturer in Haematology, University of Bristol. 100 pp. Price $2.50. Charles C Thomas, Springfield, Ill. 1957.

This concise, fairly well written little manual is stripped to the bones of excess material. The techniques and problems of fluid balance are clearly presented. Aimed at the doctor in the smaller hospital, it stresses reliance on intake and output measurements, physical signs, and the Fantus test for urine chloride rather than ferquent measurements of all the serum electrolytes in estimating fluid requirements. The section on acid-base balance could be expanded to give a clearer picture of respiratory versus metabolic acidosis or alkalosis. The problems of fluid balance in children, renal shutdown, diabetic acidosis, and post surgical patients are adequately if not extensively covered. For the physician confronted with these problems who is unable to attend a fluid or electrolyte balance course at a medical school this would indeed be a handy book to have.

Warren B. Spickard, M.D.

(Continued on page 133)



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PRACTICE OPPORTUNITIES

GENERAL PRACTICE FOR SALE

Old, well established (one of city's largest) general practice for sale. Centrally located in near eastside Portland, Oregon. Practice offered for sale due to recent death of Dr. Suckow. Contact Mrs. George Suckow, 4232 N. E. Royal Court, Portland, BElmont 2-1886 or Mr. Arthur Baines, Weatherly Bldg., BElmont 5-3183, Portland, Ore.

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If interested in re-locating, joining a group or in disposing of equipment and practice, contact us. Services strictly confidential. Continental Medical Bureau, 510 West 6th Street, Los Angeles 14, or Pacific Coast Medical Bureau, 703 Market Street, Room 1404, San Francisco 3.

(Continued from page 131)

MODERN PERINATAL CARE. By Les'ie V. Dill, M.D., Asscciate C'inical Professor, Obstetrics and Gynecology, Georgetown University School of Medicine, Washington. D.C. 309 pp. Price $6.50. Appleton-Century-Crofts, Inc., New York. 1957.

This volume, in remarkably few pages, covers a multitude of subjects related to perinatal care. Of necessity, therefore, the discussions are brief, but adequate and practical in a superficial manner. The author is to be commended for not accepting some concepts handed down from generation to generation which have never been proven and are no longer reasonable.

The book has a good bibliography and might well serve as an excellent starting point for anyone desiring to obtain the latest information on subjects related to perinatal care. For those practitioners to whom expert consultation is not readily available, it will indicate a safe and proper approach to many problems. The author has even included a short outline of the major points in the various problems and at the end of each discussion, sort of a do it yourself guide!

Here and there might be found a statement with which I would not agree, but with these few exceptions there is little which does not represent solid, generally accepted obstetrical principles.

Of particular interest is the last chapter which deals briefly with the interpretation of the attitude of the Catholic Church as pertains to obstetrical problems. The basic principles are clearly stated and should be helpful to anyone.

Bernard Gomberg, M.D.

Life Insurance Research Fund Grants Awarded to Northwest Physicians

Twelfth Annual report of the Life Insurance Medical Research Fund, covering the period from July 1, 1956 to June 30, 1957, lists grants to several physicians on the staffs of the University of Oregon Medical School and the University of Washington School of Medicine.

The Fund was organized in 1945 by a group of United States and Canadian life insurance companies for the support of medical research with the ultimate object of increasing life expectancy. At the present time, grants are awarded by the Fund to support research broadly bearing on diseases of the heart and arteries and related fundamental problems. A total of 148 companies supported the Fund as outlined in the current report.

Grants totalling $68,591.55 have been awarded to UOMS staff members. William D. Blake is to receive $28,991.55 from Oct. 1, 1952 to June 30, 1958 for research in regulation of kidney function. Dr. Blake's work is concerned with the control of glomerular filtration rate as a means of regulating body sodium content and also the effect of epinephrine on the distribution of blood flow in the kidney. The other recipient at the University of Oregon is Roy L. Swank who is being given $39,600 from July 1, 1955 to June 30, 1959. Dr. Swank is studying the suspension stability of the blood with particular interest in its relationship to fat metabolism and the role of fibrinogen.

Staff members of the University of Washington School of Medicine are scheduled to receive $154,875 in grants from the Fund. H. Stanley Bennett will receive $57,435 from July 1, 1950 to June 30, 1958 for research in fine structure of vessels. For his work in metabolism of one-carbon units, Frank M. Huennekens, Jr., Ph.D., will be given $25,300 from July 1, 1954 to June 30, 1958. Rex L. Huff and David D. Feller, Ph.D., will receive $28,340 to support their study of blood volume, blood flow and body density which is aimed to further develop radio-isotope dilution techniques. A grant of $43,800 is being awarded Donald J. Hanahan, Ph.D., from July 1, 1953 to June 30, 1959 for research in sterol metabolism and blood lipides.

Medical Library Association to Meet In Rochester, Minn., June 2-6, 1958

Fifty-seventh annual meeting of the Medical Library Association will be held in Rochester, Minn., from June 2 through June 6, 1958. Headquarters will be at the Hotel Kahler. Letters of inquiry should be addressed to Mr. Thomas E. Keys, Librarian of the Mayo Clinic and convention chairman.

Theme of the meeting is Advances in Medical Library Practice. Series of refresher courses embracing many fields of medical library work will be given with sessions being made up from the following subjects: Administration, Acquisitions, Classification, Cataloging, Non-book Materials, Photoduplication, Public Relations, Reference Work, Rare Books, History of Medicine, Bibliographic Services, Periodicals, Binding, Library Architecture, Equipment, and Medical Terminology.

A highlight of the program will be a discussion by Mayo Clinic Staff members on what the medical specialists expect from the Medical Library.

All medical librarians are cordially invited to attend.

MEETINGS OF MEDICAL SOCIETIES

American Medical Association ..... **San Francisco, June 23-27, 1958**
Atlantic City, June 8-12, 1959
Clinical Meetings

Minneapolis, Dec. 2-5, 1958 **Dallas, Dec. 1-4, 1959**

Oregon State Medical Society ..... **Sept. 3-5, 1958, Portland**
Pres., V. W. Miller, Salem Sec., M. H. Parrott, Portland

Washington State Medical Assaciation .... **Sept. 14-17, 1958, Spokane**
Pres., M. T. Harris, Spokane Sec., F. A. Tucker, Seattle

Idaho State Medical Association ..... **Sun Valley**
July 6-9, 1958 **June 14-17, 1959**
Pres., H. B. Woolley, Idaho Falls Sec., W. B. Ross, Nampa

Alaska Territorial Medical Association ..... **Fairbanks, 1958**
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Anchorage

North Pacific Society of Internal Medicine .... **Mar. 15, 1958, Spokane**
Pres., B. F. Francis, Seattle Sec., J. H. Crampton, Seattle

Pacific Northwest Obstetrical and Gynecological Association .. **Seattle**
June 30-July 2, 1958
Pres , P. Rollins, Seattle Sec., C. L. Fearl, Portland

Pacific Northwest Society of Pathologists .... **May 2-3, 1958, Portland**
Pres., H. E. Taylor, Vancouver, B.C. Sec., J. E. Hill, Spokane

Pacific Northwest Society of Plastic and Reconstructive Surgery — May 23-24, 1958—Tacoma
Pres., E. Banfield, Tacoma Sec., W. D. Rowland, Portland

OREGON

Oregon Academy of General Practice ..... **Portland, Oct. 9-10, 1958**
Pres., B. L. Trelstad, Salem

Oregon Academy of Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. through May), Henry Thiele's, Portland
Pres., G. Lyman, Portland Sec., P. Myer, Portland

Oregon Pathologists Association—Second Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., J. Minckler, Portland Sec., W. A. Haug, Portlond

Oregon Radiological Society—Second Wednesday through school year—University Club, Portland
Pres., J. W. Loomis, Portland Sec., C. V. Allen, Portlond

Oregon State Society of Anesthesiologists ..... **Portland, Third Friday (except June, July, Aug.)**
Pres., C. H. Hagmeier, Portland Sec., D. P. Dobson, Beaverton

Portlond Academy of Hypnosis ..... **Third Monday (Sept.-May)**
Pres., W. Lindsay, D D.S. Sec., H. Clagett Harding

Portland Academy of Pediatrics ..... **First Monday**
Pres., J. P. Whittemore Sec., L. H. Smith

Portland Surgical Society ..... **May 9, 10, 1958**
Pres., Russell Johnsrud Sec., C. G. Peterson

WASHINGTON

Puget Sound Academy of Ophthalmology and Otolaryngology — Third Tuesday (Oct.-May)—Seattle or Tacoma
Pres., E. DeM. Anderson, Seattle Sec., W. Goff, Seattle

Seattle Academy of Surgery ..... **Seattle, 1958**
Third Friday, Sept., Nov., Jan., Mar.
Pres., F. Carneliussen Sec., W. N. Girling

Seattle Gynecological Society ..... **Third Wednesday (except June, July, Aug., Dec., Feb.)**
Pres., P. G. Peterson Sec., L. B. Donaldson

Seattle Pediatric Society ..... **Third Friday (Sept.-May), College Club**
Pres., Paul Betzold Sec., C. Rozgay

Seattle Surgical Society ..... **March 21, 22, 1958**
Fourth Monday, Sept.-May
Pres., J. I. Tuell Sec., C. Wagner

Spokane Surgical Society ..... **April 12, 1958**
Pres., A. R. MacKay Sec., E. B. Coulter

Tacama Academy of Internal Medicine ..... **March 8, 1958**
Pres., R. Dille Sec., T. J. Smith

Tacama Surgical Club ..... **May 3, 1958**
Pres., E. R. Anderson Sec., D. Staatz

Washington Academy af General Practice....Yakima, May 23-24, 1958
Pres., J. O. Milligan, Seattle Sec., J. Ely, Oppartunity

Washington State Obstetrical Association ..... **Seattle, April 12, 1958**
Pres., M. W. Tampkins, Walla Walla Sec., C. W. Day, Seattle

Washington State Radiological Society ..... **Seattle**
Fourth Monday of each month, Sept. through May
Pres., J. N. Burkey, Seattle Sec., D. Christie, Seattle

Washington State Society of Anesthesiolagists ..... **Fourth Friday (Sept.-May)**
Pres., K. F. Eather, Seattle Sec., D. E. Soltero, Seattle

Washington State Society of Internal Medicine..Oct. 16, 1958, Seattle
Pres., J. W. Skinner, Yakima Sec., W. Spickard, Seattle

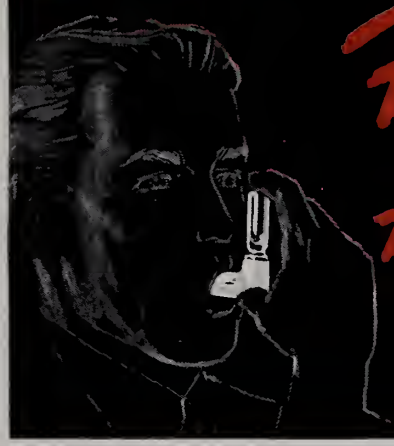
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FEBRUARY, 1958

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REFERENCES:

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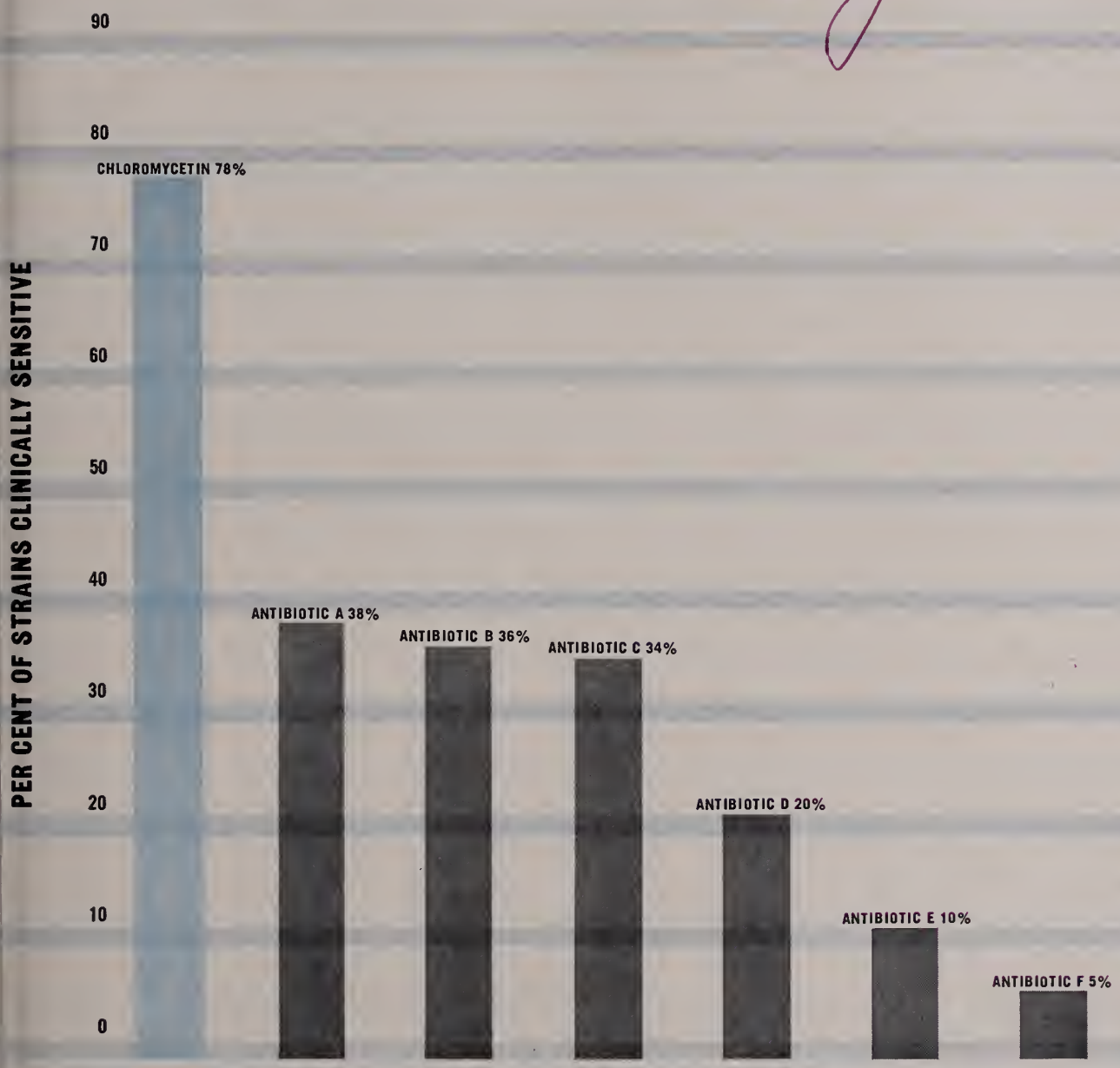
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COMPARATIVE SENSITIVITY OF MIXED PROTEUS SPECIES TO CHLOROMYCETIN AND SIX OTHER WIDELY USED ANTIBIOTIC AGENTS*

Org 211



*This graph is adapted from Waisbren and Strelitzer.[15] It represents *in vitro* data obtained with clinical material isolated between the years 1951 and 1956. Inhibitory concentrations, ranging from 3 to 25 mcg. per ml., were selected on the basis of usual clinical sensitivity.

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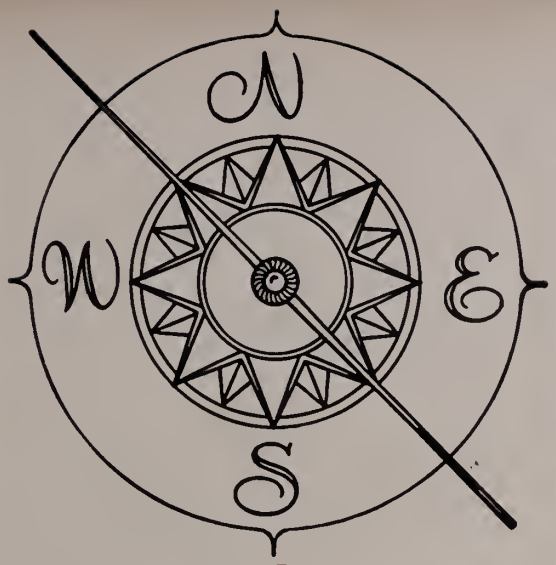


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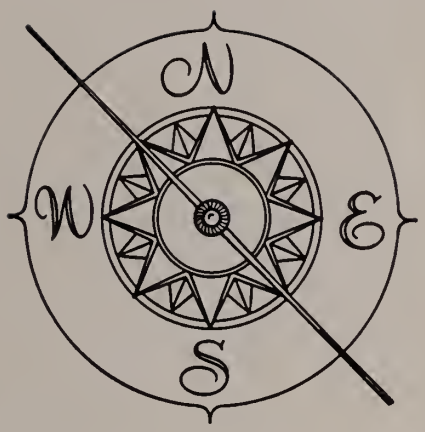
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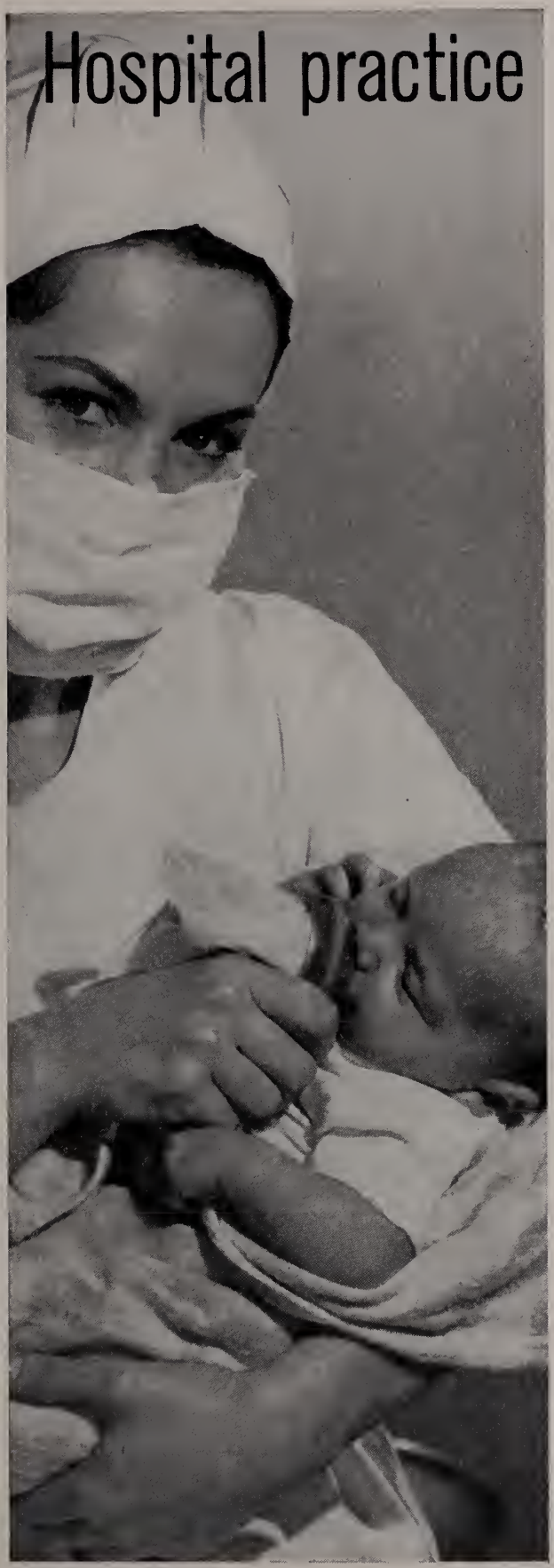
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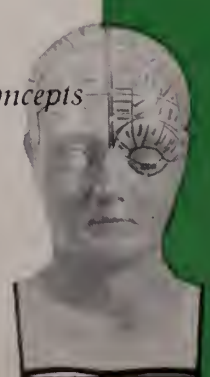
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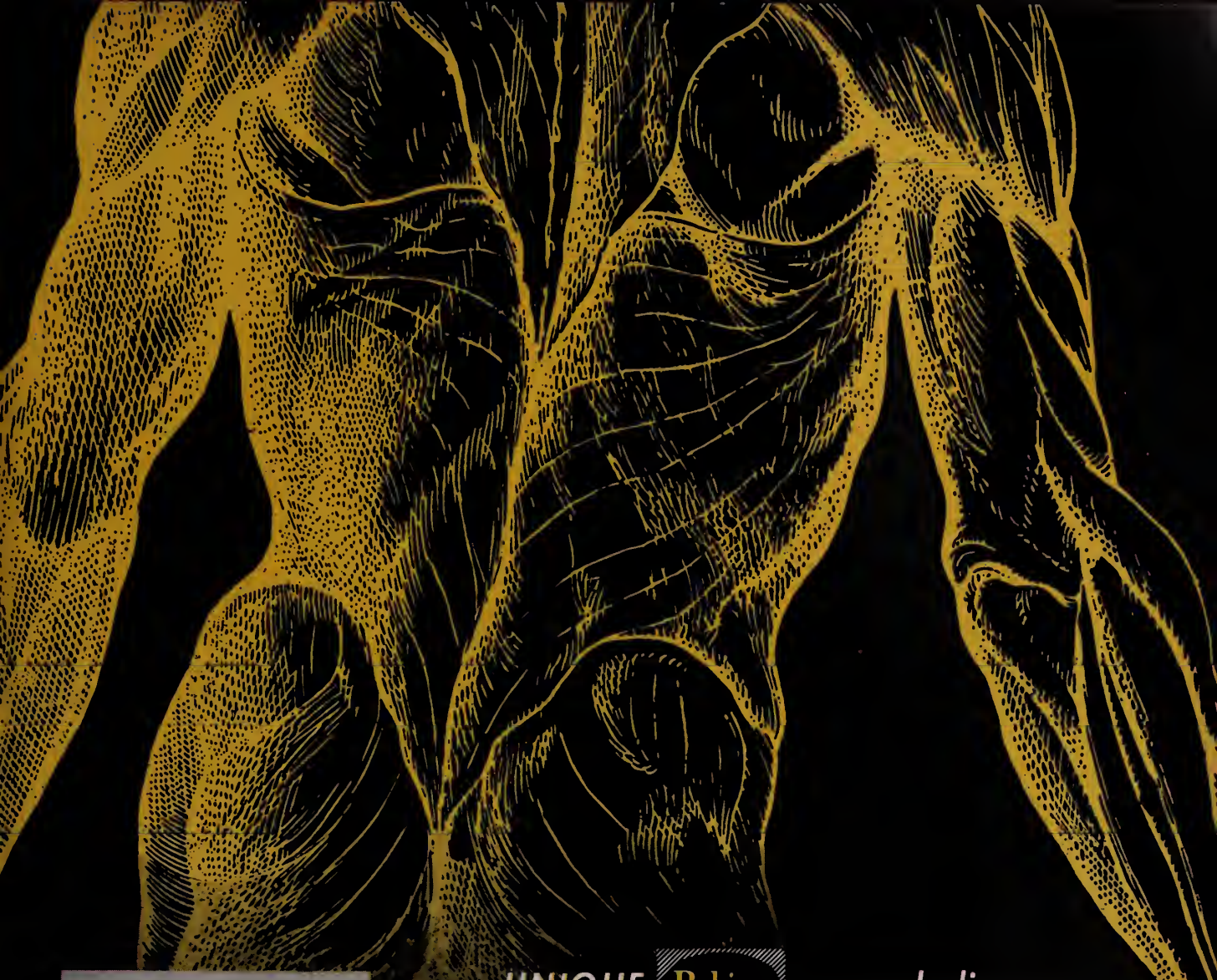
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With an old car the only insurance needed is theft insurance. The thieves know they are better and take them in the ratio of 4 to 1.

With an older car you have no garage rent to pay and thus save from five to twenty dollars a month. You have no bills for washing. The rain washes the mud off each night. New cars cost $3.00 per week for washing. If you do it yourself you catch cold and send for your doctor. He juggles you around for three or four days and then sends you to the hospital. You are there about a week and die. The doctor, the hospital, and the undertaker get your life insurance money and the wife and kids go on relief.

When you buy a new car you advertise the fact that you are prosperous and all your creditors are after you. You are automatically placed on all the sucker lists and everyone from the American Legion to parish priest are out to share your wealth.

When you buy a new car you are probably a victim of the style racket. New cars are styled like women's hats, for a season only, and they should last at least ten years. Some of the things that suckers have fallen for are free wheeling, jumbo tires, adjustable shock absorbers and wrap around bumpers. This year cars are supposed to look like airplanes; next year they will probably wiggle their fins.

When you own an old car your gas and oil bills are lower because you have a lower mileage. There is no temptation to become an exhibitionist and pile up unnecessary mileage.

Old cars are safer than new. Human life is important for without life nothing else matters. Old cars are safer than new because there is no temptation to speed. You know how fast the old boat will go. There is no need to experiment. If you want to see 90, don't look for it on the speedometer. In an old car there is no temptation to race. Nobody expects much of you. You don't have to keep up with the Joneses or try to pass them on a curve. In your old car you know where all the gadgets are. You can concentrate your attention on the road. In the new cars, things happen while you are looking for the controls. Tires and batteries used as factory equipment are generally inferior to those used for replacements. These tires and excessive speed accounts for many of the blow outs and serious accidents to new cars.

Old cars are more satisfactory than new ones because when you are in an old car you are less conspicious. You are less envied and less hated.

Old cars have less pick-up than new, especially where girls are concerned. If you have money to waste on a new car the girls think you are rich. If you are single they will marry you. If you are married they will put you into the divorce court. Double trouble.

After you have driven a car one hundred thousand miles, there comes the pride of achievement. This increases as time goes on, while the pleasure of owning a new car must decrease. An old car gives you a chance to express your personality by using it as a vehicle for mottos and slogans. When your car gets old enough you could put this on the back, "Don't laugh lady, you would look like hell too without your paint." In an old car you get the right-of-way. Crumpled fenders mean nothing to the veteran you are driving, while the smallest scratch would be fatal to one of these new creations. With old cars you can take a dog or your next door neighbor for a ride, and in doing this be sure of the fitness of things. When you are driving your old car you know that you are riding. There is no chance that you will think you are home on the davenport and wake up in the hospital or playing a harp.

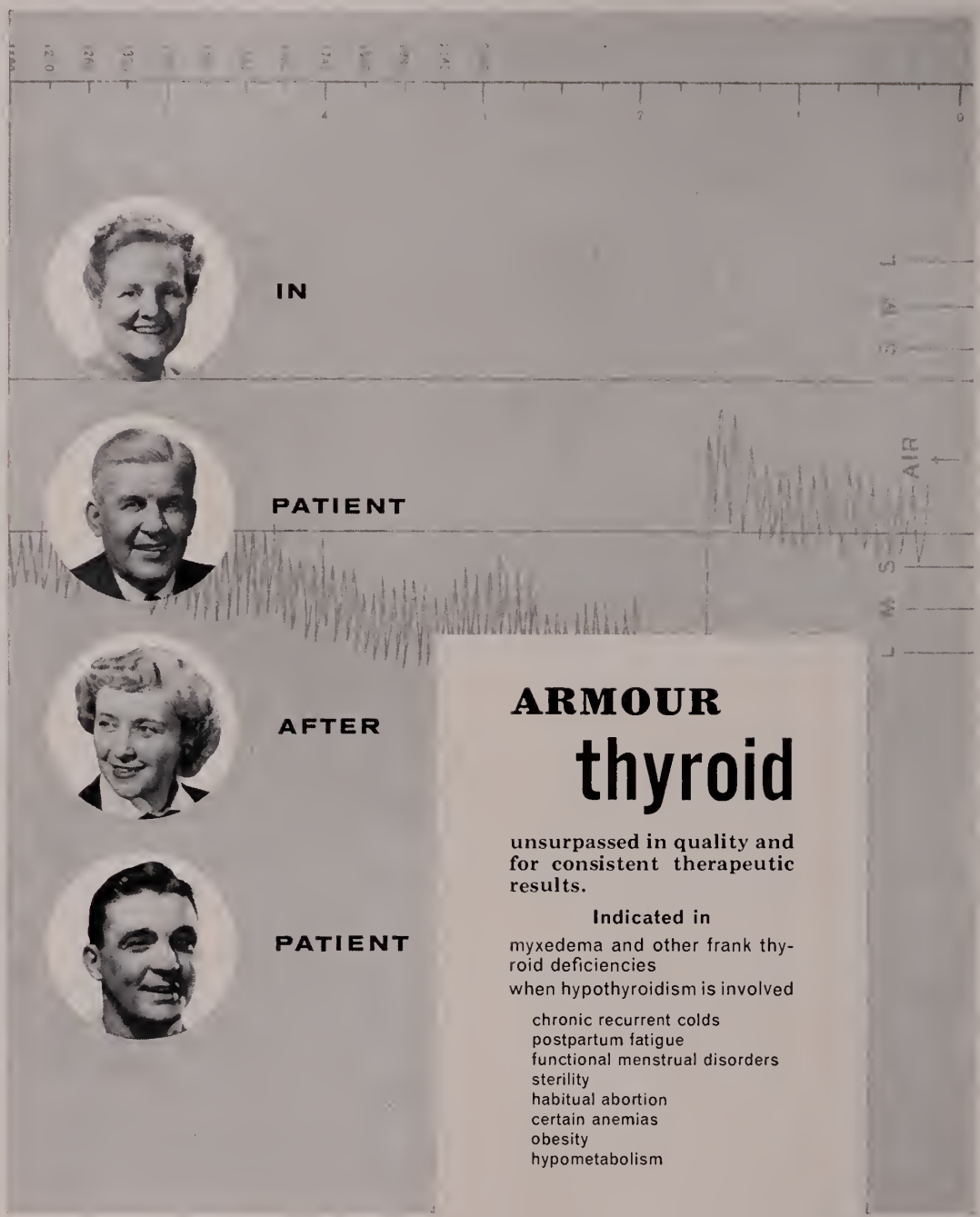
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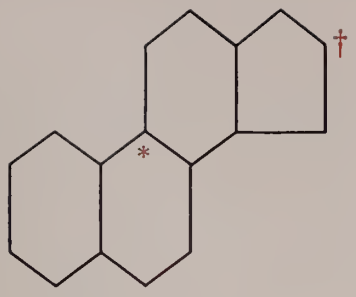
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VOLUME 57
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EDITORIAL

Pride Goes Before Destruction

A Fable

The other day as I was sorting out some letters that had been stuffed into an old shoe-box, I found an old letter which announced the establishment of a new non-profit foundation, "the only medical research foundation in existence" for the study of Tay-Sachs disease. The shoe-box had been put in the basement of our new building when we were forced to move from our old offices when the Federal Freeway 88 was built. Many of you, I am sure, do not remember when this freeway was built or even recall what a shoe-box looked like. So many changes have occurred. Now that I am very old and not long for this world, some of you may forgive and others understand my reminiscences and garrulities.

At the time when the federal super highways were being built, there were in this country, then known as Euphoria,[1] many non-profit research foundations, perhaps as numerous as the leaves on the great elm tree that stood in the middle of Capitol Park.

How did this come about? Well, you can trace the origin of these foundations far into ancient times, as far as you can trace the origin of money. Indeed, you may not have thought of it but the use of money has revealed, in my opinion, more clearly than anything else, the ingenuity, versatility and adaptability of man. I am one who thinks that money is good and that the discovery of this device should be placed among man's greatest achievements. It makes my old blood boil to hear the Biblical quotation, "the love of money is a root of all kinds of evil" distorted into the statement, "money is the root of all evil." It is sad to reflect that those who inveigh against money are the very recipients of its beneficences and would not be able to speak freely on money or any other matter, had it not been for the invention of money.

Permit me to remind you that in early stages of civilization there were only two ways of inducing your fellowmen to do things for you: the instillation of fear in them at your displeasure and making them like you so they would do your bidding—that is, fear and love. Then came barter, a most cumbersome and limited method. Finally came the device of almost universal acceptance—money. And thus there were three ways of obtaining personal service and freedom of action: the use of fear, of love and of money. Of the three, I am sure you will admit, that during historic times, money has had the widest and most applicable use, even to the point of taking over some of the uses of the other two. Imagine the folly of exchanging it for coupons and chits of limited applicability as was done by large groups in Euphoria when they were nego-

1. Editorial, Life, December 16, 1957.

tiating for what they called "fringe benefits." One of these groups, the IBT . . . but I digress. As I was saying, fear, love and money shaped our early social structures. Skillful manipulators of these powerful forces appeared from time to time and profoundly affected their contemporaries and succeeding generations. Systems of societies sprang up which manifested these forces in varying proportions and combinations.

The subsequent course of development of these societies differed in time and place. This variation was attributed often to the location of mountains, rivers, mines, wheat lands and to rainfall. But most serious students of history ascribed these variations to restless urge to activity in the members of the various social groups.

Euphoria was not always a State of Wellbeing. It started as a colony on a newly discovered continent. The colonists came from many countries with diverse social systems. But they had fairly clear ideas about what they considered the necessary conditions for their wellbeing. They felt they had certain inalienable rights as individuals and that the main function of government was the safeguarding of these rights. They did not dwell much upon their own responsibilities; they had had enough of that, at least those who had lived under kings with divine rights. The colonists set up a somewhat novel form of government in which fear was not to be used to make anyone do another's bidding. They were to be free and the government was to derive its power only from the consent of the governed. How this consent came to be obtained is another story which I will only briefly touch upon later. They prospered. They worked hard and enjoyed the fruits of their labors. They fought for their ideals not only against outsiders but also among themselves. Their form of government prevailed and the nation became a world power and champion, so they thought, of the rights of the individual. They tilled fields, worked mines, herded cattle, built cities with skyscrapers, churches, hospitals, schools and universities, all without aid from their government.

But some of their more energetic and astute citizens tended to gain power which threatened to take away from others their inalienable rights. A vast system of controls and regulations had to be set up. Because of Euphoria's status as a world power, a large military force had to be maintained. You will recall that on several occasions, certain citizens of other countries misbehaved woefully and the Euphorians had to help to straighten things out. Some of these expeditions were skirmishes and police actions but others were veritable holocausts. The Euphorians also had many internal difficulties including what they called "depressions," connected with some malfunction in their monetary institutions, all of which I could never fully understand. Many of the Euphorians, perhaps influenced by ideas derived from philosophies foreign to those of the founders, had long believed that "free enterprise," as the economic system was called, could not do the needed big jobs quickly enough or even at all. Roads and dams had to be built, depressions guarded against and farmers subsidized. So it was that the short step from the concept that the purpose of government was to safeguard the freedom of the individual, to the concept that the purpose of government was to help the individual, was taken. This brought on ever widening spheres of governmental activity, which hitherto had rested in the hands of private citizens.

These many activities of the government posed quite a problem in finance. Many clever methods of taxation were devised. Many were so complex and obscure that most of the taxpayers did not know where the government got its money. Some even thought that the government itself made it—an error easily accounted for by the general lack of mathematic knowledge. (This may not have been an entirely erroneous viewpoint for it seems that the value of the monetary unit could be manipulated to the advantage of the government.) The government was usually short on cash but the humanitarian purpose of the government justified deficits, although the early Euphorians abhorred debts.

Although the Euphorians delighted in stating that they were created equal, it was clear that the cost of government could not be borne equally by the citizens. How to apportion the cost was a very difficult problem. The lawmakers finally hit upon a sovereign idea, a neat trick which some one had heard about in a foreign country, that of taxing the citizens' incomes in accordance with a graduated percentage scale which could be altered by the lawmakers. These "adjustments" followed maneuvers which they facetiously referred to as "logrolling." "Pork barrels" were also much discussed. This did not remove, it seems, the deficit but it did increase the government's income. The taxpayers, the majority of them, now thought that most

of the money derived from this percentage method was not coming from themselves but rather from those who could be deprived of their money harmlessly, legally and morally justifiably.

They elected their congressmen, senators and presidents in ways which seem somewhat ludicrous to us now. They gathered in large numbers at certain designated intervals of time. I vaguely remember some of these gatherings. I believe they were held in great convention halls.

There is one reference to a "cow palace" as a meeting place. I do not know the significance of this but I do know that the farmers wielded great political influence. There was much noise-making and shouting at these conventions. A period of several months followed during which many speeches were made and many exhortations were given. The constitution of Euphoria was recited often in full but more frequently in part when certain sections of the constitution seemed to apply. (Other historic documents were freely cited.) Much of this activity did not seem to interest a large number of he Euphorians. They had heard all of it so often.

One thing, however, was important in this connection. Each of the majority of the Euphorian voters thought of himself as a "common man." Although I have given this term much study I am still unable to formulate in my mind just what this term meant. But the politicians of those days certainly used it effectively. It seems that since the voter thought that public moneys did not come from himself but from the other fellow, all that a politician had to do to become elected was to promise louder and more often than other candidates that he was for spending more and more money for the good of the "common man."

It was recognized by the framers of the income tax laws that each taxpayer had certain responsibilities which should be given cognizance before the percentage scale was applied —his responsibility for support of his spouse, children and indigent parents not on public assistance, and for the cost of operating his business. It was also decided that exemptions should be given for financial contributions to undisputably socially important organizations and institutions, such as churches, universities, foundations and other organizations for social betterment.

These tax laws became so complex that a large class of mathematic experts appeared who could advise the taxpayers of their legal rights and tax advantages in spending money for their business, their employees and for various other items of exemptions. Some taxpayers discovered that they could save money by taking a vacation. This system of exemptions and graduated percentage scale of taxation not only oriented the taxpayer in the approved social direction but also gave him a choice in spending his money. In fact, he could not save it; he had to pay it in taxes, donations, or extravagant business expenses. But if he preferred to give it to non-governmental research institutions instead of to the institutions at Bethesda, he could do so and feel that he was a free and public spirited citizen.

The citizens of Euphoria had always been of a generous disposition. They had given freely of their energies and money for many endeavors from an inner sense of values. Neither their government nor their fellows were fully aware of the good deeds of many of them. Some founded memorial foundations which exist to this day. Then came organizers, public relation experts, quotas, slogans and drives supported by means of mass exhortations by newspapers, radios and screens. The inner sense of values came to be displaced by considerations of tax saving or tax diversion and by compulsion from public opinion.

And so it was that a great profusion of "non-profit" foundations arose. Every chronic human ailment had its foundation, including, by extension, birth and senescence.

But I must not forget an important element in the era of the Euphorians—the Scythians. They were a disturbing lot. They did not believe in the paramount rights of the individual citizen. They worked hard, too, under a rigid system employing the power of fear—successfully I might add. The Euphorians and the Scythians were drawn into race for military control of the world, the like of which had never been known before.

The Scythians put a number of moons in the sky. The Euphorians were frightened. The Scythians had many scientists, particularly mathematicians and physicists—many more than the Euphorians. The Euphorians were informed by their intelligence agents that the Scythians seemed to have appalling command of the forces of nature which could have come about only by the acquisition of new knowledge.

The Euphorians had been long engaged in the pursuit of their happiness. Their mass education

had gradually emphasized more and more the subjects which fitted their youth for earning a living and enjoying life. Even the process of learning had to be enjoyable. If a student did not acquire the little knowledge which was put before him, little concern was felt, for the student was young only once and his happy outlook on life should not be distorted by demands that might frustrate him. Intellectual disciplines which required stepwise acquisition of facts and ideas such as mathematics and physics were generally avoided because these demanded attention on the students' part which was hard for them to give when there were so many pleasant distractions.

Only a few of the Euphorians were engaged in the effort of acquiring knowledge and understanding of the nature of the external world. Yet I must say that large number of Euphorians had some interest in the activities of the few. They were often impatient with the slow progress of science in many fields, especially in the medical field. This, of course, was natural. For many of the diseases of those days seriously interfered with their happiness. The Euphorians had little understanding of the problems but had the naive idea that the availability of large sums of money was the most important factor in their solution. Had not polio fled when the dimes marched?

But what of the Scythian moons? Had too many of the few Euphorian scientists been too busy with the leaves and branches of knowledge instead of the trunk? Had the Scythians a deeper insight into nature because many more of them were interested in basic knowledge? As the Euphorians watched the silvery Scythian moon slip by overhead, many of them asked themselves, must they earn a good living and try to understand the world also?

It was clearly too late for some of them to understand the world but perhaps their children could. And while their children were growing up and learning, they would urge more of their scientists to turn their attention to more fundamental problems than had been previously done in the days of the profusion of foundations.

The race between the Euphorians and Scythians brought to the mind of many of the Euphorians an ancient story[2] about a mule (the Euphorians had a few of these at one time in their armies). A mule, who had not been working hard and who was getting fat and soft idling around the field, fancied himself a runner. "Why, I guess I can run with the best of them," he said. "My father was a famous race horse." When his master needed him to get somewhere in a hurry, he was driven hard and became badly winded. Gasping for breath, the mule said, "I guess my father was not a race horse, but only a jackass."

Pride goes before destruction and a haughty spirit before a fall. It is not good for a man to be without knowledge and he who makes haste with his feet misses his way.

I do not remember now. I do not believe I ever published the announcement of the National Tay-Sachs Foundation, Inc. The Scythian moons and the Federal Freeway 88 came along about the same time.

J. V. S.

2. Aesop.

Hypnosis

Hypnosis, or at least the basic principle of hypnosis, has been used many times by every physician who has ever practiced medicine. Sometimes it has been used deliberately but more often, unwittingly. Sometimes the results have been good, sometimes disastrous. The principle applies, not only to fully induced hypnotic trance, but to every suggestion made

to the patient. Suggestions may be positive or negative. They may be verbal or they may be transmitted quite readily by gesture, vocal tone, or facial expression.

It is possible to use the power of suggestion as a positive, healing force. Those physicians who possess great skill in the art of medicine know how to use it, whether or not they recognize its relationship to hypnosis. It would seem wise to understand hypnosis and to employ its principle usefully rather than to permit inadvertent negative suggestion to cause damage through ignorance. Furtherance of this understanding is the purpose of the article by Cheek in this issue and one by LeCron to be published next month.

Hypnosis does not lend itself to scienitfic verification. At least not yet. This fact undoubtedly accounts for much of the skepticism about its usefulness or even its reality. Effects of hypnosis are not always reproduceable. They vary from person to person and even from day to day in the same person. This is cause for immediate rejection by the physician wholly oriented to scientific medicine.

Cause for variability in action has not been explained adequately but the answer may lie in the nature of hypnosis itself as a function of the human mind. Although it may involve primitive structure and function, there is little doubt that it is influenced materially by accumulated experience. Thus scientific verification would require duplication of enormously complex patterns, a task obviously impossible at present.

Other avenues of acceptance are open to those who understand the art of medicine. As Cheek suggests, they use the principle of hypnosis in disguised forms. Those less adroit in employment of this tool may accuse their more proficient fellows of being good salesmen, thereby admitting envy of the larger practice enjoyed by the more skillful practitioner.

It would be better for both to study the phenomenon long enough to understand its positive value. Technique is not difficult and may be learned readily by any physician but actual induction of hypnosis may have relatively small place in medical practice. Understanding of the principle on which it is based is a great deal more important. Much benefit may accrue to the patient if the principle is used intelligently and much harm can follow if it is used negatively through ignorance. Study of hypnosis should be of benefit to any physician whose practice involves treatment of patients.

The Library

A play in one act

Scene 1. Dressing room, Median County General Hospital, clock pointing to 11:00 A.M., floor littered with discarded O R clothing overflowing from hamper, dirty cups on stand under empty coffee urn, row of lockers, some open and some with locks missing, shelves of garments in considerable disarray. Two surgeons in process of changing to street clothes.

DR. GARRITILL [*untying shoe covers*]. You should have seen the tough gall bladder I had this morning. Took me an hour to dissect a mess of adhesions and then I had trouble telling where the cystic duct entered. Almost got the common duct too. Then the artery got loose and I had to make a blind grab. Got it the first time though. Only break I had all morning.

DR. MOUNDO [*partially dressed in street clothes, combing hair*]. Yea, they sure can be tough. Maybe we'll have it easier if Jobenson's technique works out.

DR. G. What's that?

DR. M. Didn't you see it in the last issue of *Mundo Surgicale?*

DR. G. No, I don't take it. Lord knows I get

so much stuff from the drug houses now, I don't have room on my desk for anything more.

DR. M. I don't take it either. I saw the article when I was in the Library the other day.

DR. G. The Library! I'm fed up with that business. Paid my medical society dues yesterday. Twenty bucks for the cotton pickin' Library. We ought to turn it over to the state and let somebody else pay for it—that is, if anybody wants it.

DR. M. Now wait a minute, Bill. You don't look quite that stupid. Haven't you even been inside the Library lately?

DR. G. No, I just don't have the time.

DR. M. Yea, I know you're pretty busy right *now,* but what are you going to do when you get out of date?

DR. G. What do you mean, out of date? I took a long residency in surgery—I'm well trained.

DR. M. Sure Bill, but new stuff comes along all the time, like that Jobenson technique. You're riding the crest right now but can you keep up with the new men just coming out of training if you don't keep reading? They know what the new ideas are but do you? Competition's getting tougher every year you know. New ideas and new research reports come faster than they used to.

DR. G. You might have a point there, Jack. Makes me think, what was that procedure young Roba had scheduled yesterday?

DR. M. I saw that schedule on the board too. Asked Roba about it. Seems it was something new on arteriovenous aneurisms, developed by Swendholm in Oslo. It was published about a year ago. I've asked the librarian to get it out for me this afternoon.

DR. G. Let me know what it is, will you?

DR. M. Sure will. But there is something else I wanted to ask you. Ever do any research? You've done a lot of colon surgery. Why don't you make a study of some of your cases and report your findings.

DR. G. Always wanted to do something like that but I never seem to have time.

DR. M. Yea, I know how it is, you *are* busy *now.* [*He puts on coat and moves toward the door.*] Well, I'll be seeing you. I have a couple of calls to make before I go to the Library.

Scene 2. The next day, Median County Medical Society Library, carpet on floor, acoustical ceiling, comfortable chair and lamp near shelf marked New Books, table with reading lamps, racks with recent medical journals, reference volumes on shelves. The librarian, seated at a desk, looks up as the door opens.

MISS MASTERS. Good morning, Sir. I'm Miss Masters. May I get something for you?

DR. GARRITILL [*somewhat startled*]. Well —yes—I'm Dr. Garritill—

MISS M. Oh yes. Dr. Moundo said that you'd be in. I have the article you want right here [*picking up a journal from her desk*]. You'll find the article on page 366 in this number. Would you like to use the table over there by the window?

DR. G. Thanks.

[*He sits at the table, puts on a pair of reading glasses, starts to read. Stops, looks around the room briefly, his eyes coming to rest on the shelf of new books.*]

DR. G. [*to himself*]. Said I'd be in did he? Now how do you like that? I guess he's a little sharper than I thought. That remark about my being busy *now* did sort of set me thinking. This looks like a pretty good setup. Guess I could find a few hours each week. Wouldn't admit it to Jack Moundo but I think I would really enjoy doing a little reading here. H-m, wonder what that new book on jaundice has to say.

[*He resumes reading. Just as he has finished the article and is ready to lay the journal on the table, the librarian approaches, a number of books and journals in her arms, each with a protruding slip of paper.*]

MISS M. Dr. Moundo said that you had been wanting to look up some material on diverticu-

litis. I have a few things here that you might like to see and will have a longer list of articles for you to look over the next time you are in. Would you like to work on these here or would you prefer a cubicle where you may keep these on the shelf while doing your preliminary reading?

[*He stares at her for a moment.*]

DR. G. Uh—thanks. Thanks very much. You *are* thoughtful. I think I'll use the cubicle. Looks like I'll be coming in once in a while.

[*She crosses to a side door, books and journals still in her arms. He follows, somewhat slowly.*]

DR. G. [*to himself*]. Guess there's a little more to this than I thought. Wonder why I didn't tumble before? But what beats me is the way that scoundrel Jack Moundo figured a way to jar me out of the rut. I wonder how many more of the fellows in the Society have been ignoring what they can get here? This is going to be real fun to do some reading again. Come to think of it, there must be an awful lot of good stuff here—whole record of medical progress, right on these shelves. Wonder how many times people have made mistakes they didn't have to make or thought they had a new idea which wasn't so new after all? Could've checked right here and been sure about it.

Scene 3. Front entrance, Median County General Hospital, the next day. Dr. Moundo is just entering, Dr. Garritill approaches from the parking lot.

DR. G. Hey, Jack. You scoundrel. I'll have to hand it to you. I got acquainted with the Library and the librarian yesterday. I'll have to admit, you woke me up. How did you figure it?

DR. M. Sure, Bill. I'm glad it worked. You're just like the rest of us—think we're too busy to keep on studying. First thing you know, we've slipped. I was pretty sure you would keep on using the Library if you would just get inside the place once and see how much satisfaction you can get out of it. How was the article on aneurism repair?

DR. G. Nice contribution.

DR. M. Sure, you find things like that pretty often these days. Ever stop to think what the Library does for this town, Bill?

DR. G. No, guess I haven't.

DR. M. In a way, it's kind of a guarantee to the people of this community that fellows like you and me will keep on giving them good service. Somebody once said the practice of medicine is a life-long experience in continuing education. How could we get along without a good Library?

DR. G. Never quite thought of it that way but maybe you're right.

DR. M. I'm sure I am, Bill, and I know you're going to enjoy using it now that you've established the habit.

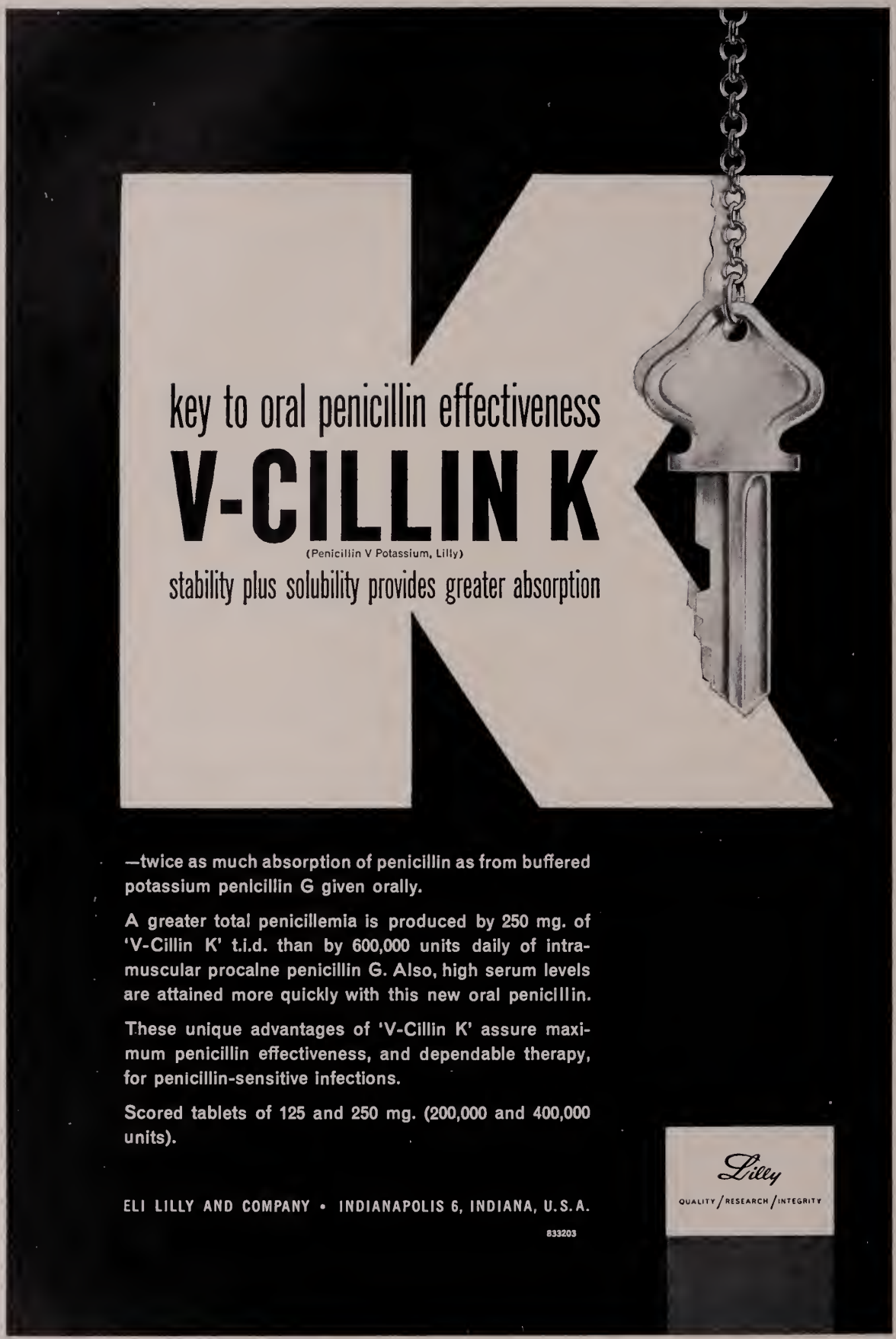
DR. G. Thanks, Jack. Maybe you've done me more good than you realized.

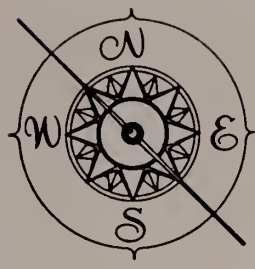
DR. M. It's OK, Bill—but I guess I'll have to make a bit of a confession. You're not the only one I've been working on lately. I'm just trying to help out a good movement by the National Book Committee. They're sponsoring National Library Week next month, week of March 16-22 to be exact. It's a good time for us to take a close look at what our own Library does for us.

DR. G. Well, I've looked, thanks to you. It's a good Library and I hope we can get more of the fellows to use it.

DR. M. We can and we will.

[*They enter the hospital and walk down the corridor as the curtain falls.*]


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SIR STANFORD CADE, K.B.E., C.B.
LONDON, ENGLAND

Breast cancer presents itself in a variety of stages and types. No single remedy is applicable to all cases. The earlier the clinical state, the greater benefit from radical surgery. The importance of accurate staging of the disease is emphasized. The more advanced cases are not likely to benefit from surgery and should be submitted to radiotherapy. Palliative treatment by radiation is applicable to the majority of cases. In disseminated cases hormonal control is the method of choice.

Cancer of the breast is the commonest malignant tumour in women. It accounts for 20 per cent of deaths from cancer in women; the incidence in men is 1 per cent of all cases of breast cancer. Throughout the past half century the incidence has steadily increased and this increase is not an apparent one due mainly to better diagnosis or certification, but is a real increase in incidence. Treatment has resulted in a prolongation of life in the majority of patients, but the number of 5 and 10 year survivals has not improved except in selected groups of cases.

A review of the situation shows three important landmarks in the treatment of mammary cancer. The first is the adoption by most surgeons of the teaching of Halsted, the great American surgeon whose name is associated with the so-called radical mastectomy. The second landmark is the advent of radiotherapy and its importance as a palliative treatment which is now generally recognised. The third landmark is the understanding of the hormonal influences on breast cancer. Halsted has opened the portals of surgery; radiotherapy has extended the therapeutic field to the inoperable group, and hormonal control has given a method of treating disseminated breast cancer previously untreatable.

Side by side with these technical developments there has been a clearer conception of the clinical and pathologic varieties of the disease, a better appreciation of the limitations of the various forms of treatment and a more critical assessment of the results obtained.

A better understanding of breast cancer as a clinical entity is based on an accurate assessment of physical signs, on the study of the various histologic types and on the appreciation of the patient's physiologic state.

Clinical Varieties of Breast Cancer

There are six varieties of mammary cancers: 1) The scirrhous, 2) encephaloid, 3) the acute inflammatory, 4) the duct carcinoma, 5) the atrophic scirrhous and 6) Paget's disease of the nipple.

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Fig. 1. Age 50 years. Stage I carcinoma of left breast. Small hard tumor palpable in upper and outer quadrant of breast. No other abnormal physical sign.

The commonest type is the scirrhous carcinoma, characterised by its hardness, its insiduous onset, its painlessness and its slow rate of growth. The presenting symptom is the discovery of a lump in the breast. There need be no other clinical sign. Adherence to skin, dimpling of the skin over the tumour, nipple retraction and presence of enlarged axillary lymph nodes are the signs of advanced disease. They should not be awaited to make a diagnosis and their absence is not an indication that the breast tumour is benign.

The encephaloid type presents as a soft, rapidly growing tumour with obvious increased vascularity such as venous engorgement. It occurs as a rule in pre-menopausal women.

The acute inflammatory carcinoma is rare, about 1 or 2 per cent of all breast cancer. It is seen more frequently during lactation or pregnancy, but also occurs in the non-lactating breast. The whole breast is enlarged; the tumour is ill-defined; there is always oedema of the skin and some discolouration from pink to purple. Lymph node enlargement is early.

Duct carcinoma presents frequently by bleeding from the nipple. A small tumour may be palpable in the region of the areola.

The atrophic scirrhous occurs in the old patient. It is characterised by intense fibrosis of the breast which shrinks slowly and may be entirely destroyed. Ulceration of the skin is common. The rate of growth is very slow.

In Paget's disease of the nipple, no lump may be detectable in the breast on clinical examination, but the nipple and the areola present a red, eczematous area, which oozes serum and forms crusts.

Histologic Varieties of Breast Cancer

The common variety, the *scirrhous* carcinoma is composed of strands and cords of epithelial tumour cells surrounded by a stroma of fibrous tissue. The other important histologic varieties are: the *medullary cancer*, composed of a conglomeration of round ephithelial cells in a delicate and scanty connective tissue stroma; the *adeno-carcinoma*, where the tumour cells attempt to reproduce ducts and acini of the normal breast; the *comedo-carcinoma*, or intraduct carcinoma, originating in the wall of the ducts; the *papillary carcinoma* or malignant papilloma.

Besides the subdivision of breast cancer into these various histologic types, grading according to the degree of anaplasia or differentiation is now generally accepted as of prognostic significance. The higher the degree of differentiation, the lesser the incidence of lymph node metastases and better the curability rate. The 5 year survival in this type is 80 per cent. The most malignant variety, the so-called Grade III, showing the least differentiation or the most marked anaplasia is the most lethal and shows only about 25 per cent of 5 year survival.

Diagnosis of Breast Cancer

Early diagnosis is of paramount importance. The only certain method is histologic verification. Biopsy in the case of small tumours should consist of the removal of the whole tumour and some surrounding breast tissue. If facilities for the examination of frozen sections are available, a diagnosis can be made in 5 to 10 minutes after removal of the lump. Histologic verification is all the more important in the early lesions, the small tumours. Needle puncture of breast tumours to exclude the presence of a cyst is not a reliable method and does not give a diagnosis of intracystic tumours. Punch or drill biopsy may provide a correct diagnosis, but a negative result cannot be relied upon to exclude the presence of cancer.

Although theoretically it is of interest to review the various pathologic conditions which may be mistaken for carcinoma—fat necrosis, mastitis and fibroadenoma—in practice the safest course is to excise the tumour for histologic study.

Stage of the Disease

Diagnosis of presence of cancer of the breast should always be followed by a careful assessment of the clinical stage of the disease. Of all factors influencing prognosis—histologic type, grading, age of patient, physiologic state of the breast, length of history or duration of symptoms —the stage of the disease is the most important.

Staging of cancer of the breast, with minor variations, is based on extent of the disease—its spread beyond the corpus mammae to the skin, the lymph nodes, the pectoral fascia or by blood borne metastases. The object of staging is to ascertain if the disease is suitable for surgical treatment or if it is unlikely to be cured by surgery. Most classifications rely on the clinical assessment of the presence or absence of enlarged lymph nodes. Such assessment is subject to a margin of error of an average of 15 per cent. Thus Stage I clinically may prove after operation to be Stage II. Seldom is the reverse found. The best known classification is that of Portman; others have been based upon it with minor variations. It can be summarized as follows:

> Stage I. Tumour of the breast only. No detectable axillary lymph nodes. No skin changes.
>
> Stage II. Tumour of breast. Palpable axillary lymph nodes or minor skin adherence over a small area or both.



Fig. 2. Age 35 years. Stage II carcinoma of left breast. There is elevation of the nipple, seen only when the arms are raised. Palpable lymphnodes in left axilla.



Fig. 3. Age 47 years. Stage III carcinoma of right breast. Retraction and ulceration of nipple. Visible and palpable tumor. Adherence to skin and pectoral fascia. Palpable lymphnodes in axilla.

> Stage III. Tumour of breast. Gross involvement of axillary lymph nodes or oedema of skin, or skin nodules; or supraclavicular lymph nodes.
>
> Stage IV. Evidence of skeletal or visceral metastases.

Choice of method of treatment depends upon stage of the disease. Surgery to the breast seems futile in Stage IV. The results in Stage III have been bad, and more and more surgeons have become more and more reluctant to undertake surgery in Stage III cancer. Operability is not synonymous with curability. And cases which are technically operable may yet be quite inoperable. Haagensen's criteria of operability are now well known and widely followed. He considers the disease categorically inoperable (even when technically operable) when there is extensive oedema of skin, oedema of the arm, satellite nodules or the inflammatory type of breast cancer.

Surgery in such cases hardly ever eradicates the disease; the 5 year survival in this group is on the average of 20 per cent. Many patients in Stage III, specially in the presence of oedema or satellite nodules, are made much worse and not better, not even temporarily, by breast ablation. In such cases radiotherapy is the treatment of choice.



Fig. 4. Age 37 years. Acute inflammatory carcinoma. Rapidly growing soft tumor filling the breast. Categorically inoperable. Surgery however wide is unlikely to control the disease. Suitable for radiotherapy and hormone treatment.

Choice of Method of Treatment

Cancer of the breast is not a simple single pathologic state which requires one method of treatment to control it. The clinical and pathologic variations require different methods of treatment. Experience dictates a policy which can be summarised as follows:

The early, and hence the most favourable, case is controlled by adequate surgery. In Stage I radical surgery has given in the hands of many surgeons an 80 per cent of 5 year survivals. In Stage II surgery is less effective, and the figure for 5 year survivals falls to 30 per cent. The results of surgery in Stage III are so poor that the treatment of choice is not by surgery but by radiation. The previously untreatable Stage IV patients with visceral and skeletal metastases are suitable for hormonal treatment. The choice of treatment is summarised in table 1.

Table 1. Choice of Method of Treatment

Stage I	Radical Surgery
Stage II	Radical Surgery & Radiotherapy
Stage III	Radiotherapy only
Stage IV	Hormones (including Adrenalectomy or Hypophysectomy)

Treatment of Patients in Stage I

The most important landmark in the progress of surgery for cancer of the breast was Halsted's contribution—the radical mastectomy which has, with minor modifications, remained the most effective treatment for early cases for the past 75 years. Its popularity, however, led it to be used in advanced cases where it proved ineffective. As the number of Stage II and III cases even today still outnumber the Stage I cases, the results of surgery analysed statistically proved disappointing. The statistically disappointing figures of survivals coupled with the development of radiotherapy have led to a swing of the pendulum from good surgery to ineffective radiotherapy and back to surgery. The most retrograde step in the history of surgery of cancer of the breast was the attempted return to simple mastectomy boosted up by radiotherapy with conventional x-rays at 250 K.V. All cannons of surgical principles of cancer treatment were broken by deliberate severance of the lymphatic channels between the site of the primary growth and the main regional lymph nodes which, even if invaded, were still deliberately left in the axilla with the hope of their problematical destruction by radiation.

The advent of supervoltage radiotherapy and the better understanding of the importance of staging in the choice of treatment have led back to a saner view, and the practice of simple mastectomy combined with radiotherapy is fortunately on the wane.

Radical mastectomy implies the removal of the breast with adequate skin sacrifice, together with most meticulous clearance of the axillary lymph nodes from the first interspace laterally, the re-



Fig. 5. Age 71 years. Atrophic scirrhous carcinoma left breast. Many years history; slow progress leading to shrinkage of breast. Lymphnodes in left axilla.

moval of both pectoral muscles and a wide area of fascia from the chest wall. The mortality of the operation is negligible (1 to 1.5 per cent); the morbidity is slight, with an occasional moderate degree of oedema of the arm. When skillfully done the range of movement at the shoulder is complete and there is no functional disability. In Stage I cancer of the breast, radical mastectomy has achieved the best results—75 to 80 per cent of 5 year survival. Many patients survived 10, 15, 25 and more years.

There are many developments in technique. The operation can be done entirely with the diathermy needle; skin can be widely sacrificed, and the defect replaced by skin grafting. Extension of the operation to include the internal mammary chain, the supraclavicular glands, or the parasternal part of the chest wall are being tried. These extended procedures increase both the morbidity and the mortality of the operation and it remains to be seen if the end results will justify this.

Treatment of Stage II Cancer

The presence of obviously enlarged axillary lymph nodes, or early and moderate skin involvement at once reduces the 5 year survival rate from 80 to 30 per cent. It is obvious that radical mastectomy in such cases leaves the majority of patients with disease beyond the reach of the anatomic area of the surgical excision. Such cases should still be submitted to operation but the addition of radiotherapy is indicated. Radiation should be directed to the supraclavicular fossa and the internal mammary chain. The lymph channels connecting the right and left internal mammary lymph nodes are numerous, and to be effective both chains should always be irradiated. Modern apparatus, such as the powerful cobalt units containing 1000 to 2000 curies of radioactive cobalt, or supervoltage x-rays in the range of two to four million electron volts, has proved most effective. The advantages of supervoltage radiation are increased depth dose and the possibility of reaching a high tumour dose of 6000 to 8000 r without any or only very slight damage to the skin.

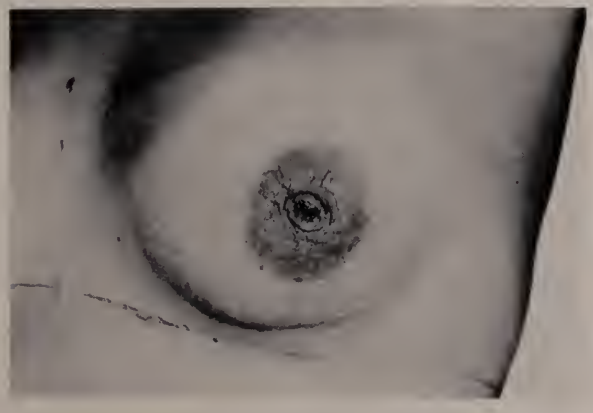


Fig. 6. Age 27 years. Oedema of skin—the so-called "pig-skin" or "peau d'orange." Categorically inoperable.



Fig. 7. Age 40 years. The significance of skin nodules. There is an interval of only six weeks between the two photographs. Even a solitary skin nodule signifies extensive invasion of lymph vessels and is of grave prognostic significance.

Treatment of Patients in Stage III

Stage III cases, specially those with oedema of the skin or satellite nodules, fall in the group of categorically inoperable, according to Haagensen's criteria of operability. For the past 10 years it has been my practice never to operate on such patients. These patients are never "cured" by surgery, the postoperative morbidity is often very great and the incidence of widespread local recurrence is nearly 100 per cent. These patients are suitable for radiotherapy often combined with the administration of hormones. Radiotherapy is of palliative value only. Regression of lesions is obtained in most cases but not total disappearance.

The great advantage of this method of treatment is the relief of symptoms and the clinical inactivity of the tumour often for several years. The achievement of palliative radiotherapy alone or in combination with hormones can be expressed by the word *control*. The patients are alive with disease but with minimum of symptoms and the cancer remains quiescent often for

3 years or more. The palliative effect of skilled radiotherapy in many cases of advanced growths is so satisfactory as to obviate the need of simple mastectomy to relieve the patient from a fungating, bleeding and infected tumour mass. Local healing of such breaking down tumours may be permanent although the disease spreads to the regional lymph nodes, the viscera or the skeleton.

Treatment of Patients in Stage IV

Dissemination of mammary cancer to the skeleton and viscera as well as extensive, often bilateral primary tumours are amenable to treatment by hormones. Both administration and withdrawal of hormones may prove of value. Paradoxically, both androgens and oestrogens—according to the age group—may lead to regression of lesions, afford relief from pain from skeletal metastases and result in regression of lesions. The effect of systemic administration even in hormone-dependent tumours is not lasting. In most patients the disease reactivates after an initial period of inactivity which generally lasts 6 to 12 months.

After such trial or if the patient does not tolerate hormones or is made worse by them, adrenalectomy or hypophysectomy is justified and often indicated.

Two important discoveries have resulted in the clinical adoption of adrenalectomy or hypophysectomy as a practical possibility in the treatment of disseminated breast cancer. Charles Huggins of Chicago was the first to suggest and practice adrenalectomy, having observed the hormone-dependence of some breast and prostatic cancer. The discovery of cortisone permitted the maintenance therapy essential for survival after these procedures. Adrenalectomy has been practiced for the past six or seven years; hypophysectomy for 4 years. Both procedures aim at the abolition of the formation of steroid hormones. In hormone-dependent cases, disseminated lesions regress and for a time—varying from a few months to 4 or 5 years—the disease ceases to progress and the metastases disappear or remain quiescent. There is as yet no accurate method of distinguishing the hormone-dependent from the independent cancers and the result of the operation still remains unpredictable. About 60 per cent of cases are hormone-dependent. Of these about half show complete subjective and considerable objective improvement and the remainder show partial improvement. To date no other form of treatment has achieved so much in the management of the advanced cases.

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Hypnosis

An Additional Tool in Human Reorientation to Stress

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Our F.O.B. equipment for meeting the twentieth century stresses of life are in need of improvement, as has been well pointed out by Selye.[1] We have tried to alter the functioning of our obsolete equipment with chemicals and hormones but the results have been disappointing. Our physiologic responses to danger are essentially the same as those evolved by the first vertebrate animals some 450 million years ago. In situations of continued unfavorable environment, lower animals will go into a resting state for individual survival or will reproduce in numbers large enough to ward off species destruction.

Students of paleontology have been interested in factors causing extinction of various animal groups whose adaptations did not keep pace with environmental threats. Paleontologists are seriously concerned over the prospect for Homo sapiens. When he goes into a potentially helpful hibernating-like state in an automobile accident, he is brought out of it as quickly as possible by his alarmed physician. In times of great political confusion and strife his women become less fertile. We have seen a wonderful decline in mortality since 1900 from such diseases as meningitis, pneumonia and tuberculosis but there has been a steady increase in morbidity and mortality from peptic ulcer, malignancy, the collagen diseases and vascular disease. These seem to eventuate more from our feeble adaptations than from the fact that there are more people surviving to an older age than in 1900.

Religion

There is some reason to believe, according to the reports of increasing cigarette sales in 1957, that many members of our species do not appreciably care about the future of Homo sapiens. If, however, we do care, what can we do? Can we turn to religion?

Religious faith can play a very important part in recovery from trauma or acute illness but there is an understandable tendency for the patient with a recurrent or continued illness to believe eventually that his misfortune is the will of God. There is a strong tendency toward assumption that the illness is punishment for some real or imagined misdemeanor.

Insurgency against bad luck is a valuable aid in releasing defense potentials for recovery from serious illness but insurgency may give way to passive submission if the patient with strong religious beliefs has, like Job, experienced nothing but disappointment. The patient with chronic illness needs to know why he may have failed to recover, to know that failure can be reversed, to know that the unfavorable responses so far may have been the result of poor faith in himself rather than expressions of anger from an Almighty. He must be given the tools with which to fight, the means of altering unsatisfactory physiologic mechanisms.

Psychiatry

Our very small army of psychiologists and psychiatrists might help us improve our adaptations to continued stress but limitations of time, money, and the widespread clinical blindness to psychologic factors in illness are serious handicaps in this channel. The men and women equipped to help are not seeing the apparently well-adjusted hypertensive who cannot consciously recognize his conflicts, or the arthritic, the young diabetic, the tuberculosis patient, the respiratory cripple with asthma, emphysema, or bronchiectasis. They are not seeing the woman who disguises her genital fears with menorrhagia or continued vaginitis, the woman who feels in-

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adequate as a female because she has hair on her abdomen or thinks her breasts are too small. They are not seeing the great majority of men and women with duodenal ulcer, gall bladder disease, or "colitis." These are just a few of the disturbances for which Homo sapiens needs psychologic help.

He is not getting it from those most qualified to give it. He is not getting it because the greater part of our medical practitioners have not had a chance to learn in what diverse ways the individual reacts to stresses. We have not learned a quick way to evaluate these factors. We have not learned the easy ways of releasing consciously repressed material and we have not learned the art of listening adequately to our patients.

Hypnosis

Hypnosis is not a panacea. There are limitations to its successful use. There are some dangers as there are with any good equipment when poorly used, but hypnosis is a valuable tool not only in assessing psychologic factors in disease but in allowing malfunctioning physiologic processes to be corrected. Its potential in speeding wound healing and releasing life-saving defense mechanisms in the presence of previously overwhelming infection was recognized over 100 years ago by James Esdaile.[2] It has been too much relegated to use for alleviation of pain and too little recognized for its value in building ego strength in the patient, in uncovering fear and in reorganizing physiologic adaptations to environment. The contributions of men like Esdaile, Elliotson, Krafft-Ebing, Wetterstrand, Liebeault, Bernheim, and Coue have largely been ignored until the years following the second World War.

Everyday Hypnosis

Hypnosis has been a nasty word for many people since it was coined by James Braid over 100 years ago. It is time we recognized its value as a symbol of very wonderful and multiphasic force. We as physicians use hypnosis so often in disguised forms that we should advance further to a full knowledge of its mechanisms. Possibly we should teach them to our children who are less rigid and much more responsive to suggestions than are we when we have finished medical school and hospital training. We can see hypnosis in action around us every day. In its superficial form it goes by the name of salesmanship. In its most profound form it may be responsible for the survival of a girl pinned nine days beneath a car in the mountains of Utah.*

Spontaneous Hypnosis

Hypnosis can be induced by trauma or by a great emotional stimulus. In this respect it may be similar to the freezing for camouflage found in lower animals during an emergency. Hypnosis can be induced by lulling through repeated gentle stroking of the skin, as once done by the mesmerists. In this form it may be similar to the effects produced by the nursing mammal in licking its young to quiet them into sleep, or the human mother in caressing her baby.[3]

The focusing of any of the five senses to the exclusion of awareness in the other senses may bring about an hypnotic state. Fascination or focusing of this attention may be exogenous as with the rabbit facing a snake, or the human lulled by soft music. It may be endogenous when a subject daydreams or actively uses recollection of previous peaceful experience. The masculine propensity at breakfast for becoming "lost" in the sporting pages while his wife vainly tries to get a response to a question is an example of spontaneous hypnosis and dissociation.

Incentive

Direct hypnotic suggestions may not be effective in bringing about an hypnotic state. Motivation is very important.[4] Patients may be completely refractory at one time when there is little need but may be able to reach a deep state under different circumstances when the need is great and other means of therapy have failed. Sometimes this need can be expressed by the operator and communicated to the subject, but curiously this often is spontaneously understood and accepted by the subject during a critical illness without any verbal communication of this need by the therapist. Every medical hypnotist has been impressed by this quality of incentive which seems occasionally to work in response either to extrasensory perceptions or increased awareness of minimal cues.

Research Hypnosis

Many research projects using hypnosis to alter physiologic responses in relatively disinterested volunteers have been disappointing because the important factor of incentive has been lacking or the attitude of the investigator has been so

*Jean Margetts, June 24, 1956, in Wasatch Mountains near Salt Lake City.

"scientifically objective" that the subjects have picked up the minimal cues of failure along with the directive suggestions. Research with the physiologic processes of the critically ill under hypnosis has been underexplored. This is the area of greatest potential gain. Physiologic responses of the patient under hypnosis with varying imagined environments can use the patient as his own control. This is a much needed and very fertile area for biochemical exploration.

Law of Reversed Effort

The hypnotic force of pessimistic thoughts is greater than that of optimistic ones. This is a law of human behavior which is responsible for such agonies as postoperative urinary retention, continued enuresis, obesity, compulsive coughing and frigidity. Emile Coue called this force the "law of reversed effort."[1] We fail many times before we succeed with any new experience. The infant falls many times before walking. The flush of achievement soon pales at the realization that everyone is walking even better than he. The psychologic tricks of showing a patient how to circumvent the law of reversed effort belong to the art of hypnosis. Without them we are powerless to help patients with the great majority of psychosomatic illnesses. It is not enough when we tell the woman with the headache that she does not have a brain tumor and that the pain is all nervous. We must give her the tools to combat all her previous unpleasant experiences with the headache. The subconsciously frightened pregnant patient with hyperemesis needs to know that her vomiting has become a habit. She can eat and thoroughly digest a full dinner within an hour of learning that she can alter the physiology of her intestinal tract with recollections of appetizing food. This is not the complete answer, however, for she must also learn that there may be recurrence of nausea at times until she has full confidence in her ability to use her own hypnosis constructively. She needs to know what her fears have been and what conditioning factors were responsible for the continuation of symptoms. She needs to know that previous failures to control the vomiting by will power did not make her an inadequate person or a neurotic.

Rebellion Against Coercion

The child is always being told what to do and not to do. Although there may be outward obedience to these coercions there is invariably an internal rebellion. This force is probably the greatest enemy of the medical hypnotist until he learns humility and respect for the subconscious drives of his patient. We ask for cooperation from the subconscious with our hypnosis and we are much more likely to get it when we ask nicely and offer permission to the subconscious to refuse or alter the responses to a request.

Psychologically constructed as we are in our personal needs for acclaim and gratitude for our therapy we, as physicians, have to struggle hard before we fully recognize that we succeed in direct relation to the amount of confidence the patient has in us. This recognition usually comes slowly through the years. Often we seem to do our utmost to tear down the ego strength of our sick and dependent patients in order that we may improve our own ego strength. Nothing will do more for correcting this mistake than continued experience with a permissive technique in medical hypnosis.

As our experience grows we learn that our "power" as hypnotists is a gift from the responsive patient. This gift should be treated with respect for it can be easily taken away by the patient. We learn that our role is that of a sensitive catalyst activating the subconscious forces within our patients. This is the case with the ordinary practice of medicine also but experience with hypnosis brings the lesson home most convincingly.

The physician who understands the mechanisms of hypnosis has an extra tool at his command. He soon learns to use it sparingly and in appropriate places. He may stand a better chance of doing less harm than good in his work. *He will be protected from that very dangerous form of disguised hypnosis exerted upon him by his grateful patients who may, through the years, convince him that he can do no wrong.* All of us find it much too easy to remember our successful efforts and to forget those unpleasant creatures who have drifted elsewhere for medical help.

Dangers

The dangers of hypnosis have been greatly exaggerated. There are certainly dangers in hypnosis and the writers who state them are scientifically correct while they actively potentiate the dangers by pointing them out. The mechanisms by which hypnosis can do harm are not different from the tools which Lady Macbeth used on her husband, which Cassius used

on the honorable Brutus, which Iago used on Othello or the Governor of a southern state recently used on his people to harm the negroes following directions of our Supreme Court. *We can do more harm with ignorance of hypnosis than we can by intelligently using the forces of suggestion.* Thousands of surgical cripples can attest to that fact.

Self-Knowledge of the Unconscious

Patients will sometimes disturb our peace of mind by telling us why they are ill and what we should do about it. This can be an annoying trait of the neurotic and in the normal awake state can do much to destroy friendly relationships between physicians and patients. When it occurs during or shortly after a patient has been in hypnosis it is wise to make notes of the opinions, to use them profitably and with gratitude, for they are usually correct. This is a strong statement. It can be substantiated.

This curious insight can be evoked at a conscious level by using a Chevreul pendulum with the unhypnotized subject according to the technique of LeCron.[6] It can also be demonstrated with ideomotor reflex finger signals in answer to questions with the subject under hypnosis. Speaking under hypnosis is less reliable than the muscle reflex answers until the patient has been trained to maintain a deep trance while talking.

Teleology

In addition to this psychologic adroitness there is a very wonderful tendency of the subconscious to adapt physiologic processes beneficially. James Esdaile[2] was one of the first medical hypnotists to call attention to this quality. Emile Coue[1] called it the "teleology of the unconscious." Esdaile (1846) found extraordinary fortuitous responses in his East Indian patients when he was using only mesmeric passes without any verbal suggestions. His operative mortality dropped from approximately 50 per cent to 5 per cent due to a decrease in surgical shock and nausea as well as an apparent increase in systemic resistance to infection. His infection mortality rate was not equaled anywhere in the world until after 1866 when Lister demonstrated the importance of sterilizing instruments and dressings and of washing the hands before instead of after surgery.

I have asked for the identical general response of awakening "feeling comfortable, relaxed and rested" from one patient with a sprained swollen ankle and from another patient whose body was covered with blisters and weeping raw areas of poison oak dermatitis. With the first patient the ankle became painless and the edema was gone within 12 hours. The second patient with the poison oak slept a full eight hours that night without scratching. The lesions were healed in 24 hours in spite of her previous experiences with the distress lasting a minimum of 14 days. Esdaile tells of a man who withstood a two hour operation for cancer involving the maxillary bone, the orbit and extending through the palate into the pharynx. The man maintained every position without moving until an accidental trickle of blood ran into his trachea. At this point he leaned forward and coughed to clear his lungs. At no point did he feel pain. We cannot duplicate this type of behavior with surgical anesthesia.

A Method of Probing the Unconscious

A physician attending a symposium on hypnosis volunteered as a subject to experience a method of uncovering the factors responsible for his troublesome gagging when in a dentist chair. The therapist began questioning him with a Chevreul pendulum:

Q. "Does your subconscious know what caused the gagging?"
A. "Yes." (Indicated by the direction of ideomotor swing of the pendulum) see LeCron.[6]
Q. "Did the cause originate before you were 20 years old?" (The physician was 52 at the time of quesioning.)
A. "Yes."
Q. "Was it before you were 10 years old?"
A. "Yes."

At this point the physician put the pendulum down on his lap and with a surprised expression on his face gave in essence the following account:

"Now I remember what it was. When I was a child in Chicago they were worried about me. I was put in an open air school because they thought I might have tuberculosis. Because I was underweight my mother forced me to eat eggnog and extra amounts of milk till I felt constantly stuffed. Then I began having sore throats and they took out my tonsils. I remember that I hemorrhaged after the operation and the house doctor put a hemostat in my throat and left it there all night." The physician closed these re-

marks with an unconscious gesture of his supine hands to indicate that this seemed to be all there was.

A member of the teaching panel asked, "Have you ever thought of this relationship before you came up here to sit down?" The answer was "No." "Then would you please hold up that pendulum again while I ask you another question?"

When the question, "Are you now in hypnosis, doctor?" was asked, the physician looked surprised again and answered verbally, "No, why do you ask?" While he was answering this apparently foolish question the pendulum began wildly swinging in the "Yes" direction indicating his subconscious recognition that he had spontaneously gone into an hypnotic state while concentrating on the movement of the Chevreul pendulum during the early questioning.

This is a beautiful example of the fortuitous behavior of the subconscious when given an opening for analysis of the factors in a complaint. There was no further questioning and no suggestion other than the tacitly implied one of inviting the physician onto the platform for a demonstration of an hypnotic technique aimed at curing an overactive gag reflex. The therapist invited a dentist up to check the results. This had been done when the physician came up to the platform. He had retched when an instrument had been used to depress his tongue. Now after stating the factors spontaneously apparent to him, the tongue blade failed to cause a gag reflex even when the uvula was touched.

In addition to this ability of the unconscious to perform helpfully when given free rein under hypnosis to alter physiologic mechanisms, there is the curious tendency for time distortion and hyperamnesia which can be helpfully used in mental illness. LeCron will ask a patient to go forward a year or two and be calling at his office for a follow-up visit.[7] He will then remark that it has been a long time since the last visit and "would you be good enough to remind me of what happened to help you get well?" The patient will outline in the past tense the self-determined course of therapy which Mr. LeCron can then feed back to him with beneficial results.

It is impossible to do more than outline some of the aspects of hypnosis and its use in medicine here, but there are several broad principles which should be kept in mind. It has been the purpose of this paper to present some of the features of hypnosis which are not commonly discussed in the current lay and scientific publications. The methods of handling specific illnesses will vary with the disease, the patient, and the operator, but the following general outlines of approach and concept may prove helpful to those who elect the addition of hypnosis to other diagnostic and therapeutic tools in the ever increasing complex which constitutes the art of healing.

Definitions and Basic Laws Applying to Medical Hypnosis

1. Superficial suggestion of advertising, good salesmanship, and effective teaching are as related to the deep trance of hypnosis as crawling is to running. The means of induction by vivid use of imagination, repetition, or shocking into undivided attention are the same.

2. The deep hypnotic trance is related to resting states of lower animals in hibernation or "freezing" for camouflage in time of danger. In the deep hypnotic state there is a release of powerful physiologic defense mechanisms which can be of life-saving value in critical illness.

3. Even in light states of hypnosis there is found a curious ability to utilize self-analytic qualities relating to psychosomatic and psychic illness and these may prove curative without the intermediation of the hypnotist in any other way than as a catalyst.

4. A workable hypothesis for medical hypnosis seems to be that it depends for the most part upon use of experience with any of the senses in orienting better to external or internal stresses. This definition does not cover the hypnotic states resulting from lulling stimuli as with mesmeric passes nor does it adequately cover the spontaneous states found with trauma or great emotional shock. These exceptions are rational, however, if we consider them related

to fortuitous reflex behavior of lower animals in time of stress.

5. Motivation is of great importance in modulating success with hypnosis. The greater the need for help, the greater the susceptibility of the patient.

6. The law of reversed effort must be circumvented to help patients use hypnosis successfully and it is wise to develop confidence in altering unimportant reactions before advancing to the treatment of the actual complaint. Often the patient will correct the main complaint after the preliminary demonstrations and before anything has been done directly in the important area. This is better for the ego strength of the patient than being forced to recognize that the therapist had used direct suggestions for cure of the main problem.

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Government and Business

More and more people are asking: "Are we overgoverned?" As recently as 1954, total federal, state, and local tax and nontax government receipts came to $89.6 billion. In 1956, the figure reached $107.6 billion. In 1956, our national income stood at $343 billion. Thus, nearly one-third of the national income is channeled through government. We are approximately one-third socialized. If the government sector continues to grow, as it has since 1929, in fifty years 99 per cent of our economy will be socialized and only one person out of 100 will be privately employed. Perhaps no one expects this trend to continue, but there is nothing in sight at the moment that is stopping it!

By Dr. Emerson P. Schmidt in The Freeman, August 1957, Volume 7, p. 4.

Surgery of Major Arterial Aneurysms

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Risks have been reduced to the point that elective operation for arterial aneurysm offers better prognosis than conservative treatment. Recent improvements offer hope for better results in thoracic aneurysm but mortality remains high in rupture at any site.

Rapid advances of medical science have changed life expectancy of the human race drastically over the past two decades. However, our advances in the most universal disease of all, arteriosclerosis, have been purely palliative in nature, while populace in the age groups concerned has increased many fold. Medical literature as early as the 16th century contained descriptions of advanced peripheral arteriosclerosis, and even prior to this Fallopius[1] described examination of an elderly woman whose arteries had "degenerated into bone." Pathologic description of aneurysmal arterial dilatations was well presented by William Hunter[2] in 1757 and there were some speculations at that early date as to their possible surgical therapy. True surgical intervention was not commonly considered until after attempts of Rudolph Mattis[3] in the late 19th century, and excision of these lesions awaited introduction of arterial replacement techniques, first satisfactorily performed by Gross[4] in 1948.

This report is a discussion of 114 operations for surgical repair of arterial aneurysms performed since 1954.

General Considerations

Prior to discussing specific techniques of surgery, one must discuss the general indications for an attempt to repair a major arterial segment.

In general, arterial aneurysms constitute surgical indication by their presence. The natural history of aneurysms was well discussed by Estes,[5] who showed that 33 per cent had fatal termination within the first year after recognition of the lesion and that only 18 per cent survived a five year period. Expected mortality from other causes in this age group (60 to 70 years) is only 10 per cent over an eight year period.

In this series of 114 aneurysms (table 1) there were 18 ruptured aneurysms operated upon with only 4 survivors.

Table 1. Major Arteriol Aneurysms

Artery	No.	Successful	Foilure	Expired
Carotid	1	1		
Axillary	1	1		
Aortic Arch	2			2
Thoracic Aorta	11	5		6
Abdominal Aorta	46	38	2	6
Aortic Bifurcation	45	34	2	9
Femoral	3	1	1	1
Popliteal	5	4	1	
Total	114	84	6	24

The general cardiovascular-pulmonary status of the patient must be the primary consideration if an arterial aneurysm is to be treated conservatively.

Results

One hundred and fourteen arterial aneurysms (table 1) have been operated upon and repaired in 108 patients between Dec. 31, 1954 and Jan. 1, 1958 (Fig. 1). Six patients had multiple aneurysms. Ages have ranged from 16 years (post-traumatic thoracic aneurysm) to 84 years.

Presenting symptoms (table 2) were varied, but

Table 2. Symptoms Nonruptured Aneurysms

Symptom	Patients	
Total	90	
Palpable Mass	87	(all but thoracic lesions)
Slight Back Pain	25	
Severe Back Pain	4	
Severe Abdominal Pain	9	
Abdominal Discomfort	51	
Pain in the legs, mild	42	
Pain in the legs, severe	7	
Claudication	18	



Fig. 1. A typical aneurism of the lumbar aorta between the origin of the renal arteries and the bifurcation.

with the exception of ruptured aneurysms, symptoms were generally mild. Slight back pain was noted by 25 patients, and severe back pain by 4. Vague abdominal discomfort was common (51 patients), and true abdominal pain was noted by 9 individuals. Forty-two individuals had mild pain in the legs and 7 had definite evidence of L-5 nerve root irritation with severe pain and hypesthesia. Eighteen patients had true intermittent claudication of the lower extremities, either from associated peripheral arteriosclerotic occlusions or from distal emboli from the aneurysm. Embolization into the superficial femoral artery from an aortic aneurysm should always be considered in patients in the 50 to 60 year group with sudden onset of leg pain and later claudication. Two patients of this series were in this category. The aortic aneurysm was overlooked initially in each instance.

Eighteen patients had sudden onset of severe abdominal pain, shock, and evidence of hypovolemia with typical ruptured aneurysms. All patients presented pulsating mass, demonstrable radiographically or by physical examination.

Ninety aneurysms were of the abdominal aorta of which 44 required resection of the bifurcation. Thirteen were in the thoracic aorta and 10 were of peripheral vessels. Ninety-five of these aneurysms were operated upon electively. In 18 instances the aneurysm had ruptured, necessitating emergency surgery. There were 14 deaths and only 4 successful repairs in the 18 patients operated upon for ruptured aneurysm. In the 95 cases of elective operation for aneurysm, there were only 10 deaths and 8 of these were in patients with thoracic aneurysms. In 6 cases there was failure of the arterial prosthesis, either due to immediate or late rupture of the graft, or to secondary thrombosis. Five of these patients were again operated upon with four of the secondary attempts being successful in reestablishment of arterial continuity.

Choice of device to be used in arterial replacement depends much upon the materials at hand as well as familiarity of the surgeon with the various agents. Schumacher,[6] Shumway and Lewis,[7] Hufnagel[8] and many others have presented encouraging experimental data using a variety of prosthetic materials.



Fig. 2. Replacement of a lumbar aortic aneurysm (Fig. 1) with an Ivalon arterial porthesis.

Ivalon

Following experimental work initiated by Shumway and Lewis,[7] I have used compressed polyvinyl sponge (Ivalon) as placement after resection of 49 arterial aneurysms (table 3). This

Table 3. Aneurysms Repaired with Compressed Polyvinyl Sponge

Artery	No.	Successful	Failure	Expired
Thoracic Aorta	8	3		5
Abdominal Aorta	22	20		2
Aortic Bifurcation	17	15	1	1
Femoral	2		1	1
Total	49	38	2	9

material is easily fabricated by the surgeon, in the operating room, without special equipment or delay. It is easily sutured and is well tolerated by the body. Bifurcation can be constructed with ease. Its chief advantage is lack of transmural hemorrhage during the early minutes after insertion (Fig. 2).

Compressed polyvinyl prosthesis was used to replace a segment of thoracic aorta in eight instances. Three of these operations were successful. Five patients expired. Thirty-nine abdominal aneurysms were replaced with an Ivalon



Fig. 3. Replacement of a lumbar aortic aneurysm with an arterial homograft. (Note the anterior placement of the lumbar arteries on the homograft, for ease of control.)



Fig. 4. Replacement of an aneurysm of the bifurcation of the aorta with a nylon arterial prosthesis.

prosthesis. Failure occurred in two instances. One bifurcation graft was followed by thrombosis of an iliac branch three weeks postoperatively and the patient ultimately expired. A second bifurcation graft was improperly fabricated and ruptured on the eighth postoperative day. This was successfully removed and replaced with a nylon prosthesis.

Polyvinyl sponge prostheses were used in replacement of two femoral aneurysms but neither operation was succesful. In one instance the graft became infected and required removal. This patient expired from the resultant septicemia. A second such prosthesis thrombosed after two years and was later replaced successfully by a nylon by-pass graft.

Arterial Homografts

Arterial homografts sterilized with beta-proprio lactone and stored in Hank's solution,[9] were used as arterial replacements in 28 instances (table 4). One thoracic aneurysm replacement was unsuccessful when the patient expired from generalized bleeding late in the

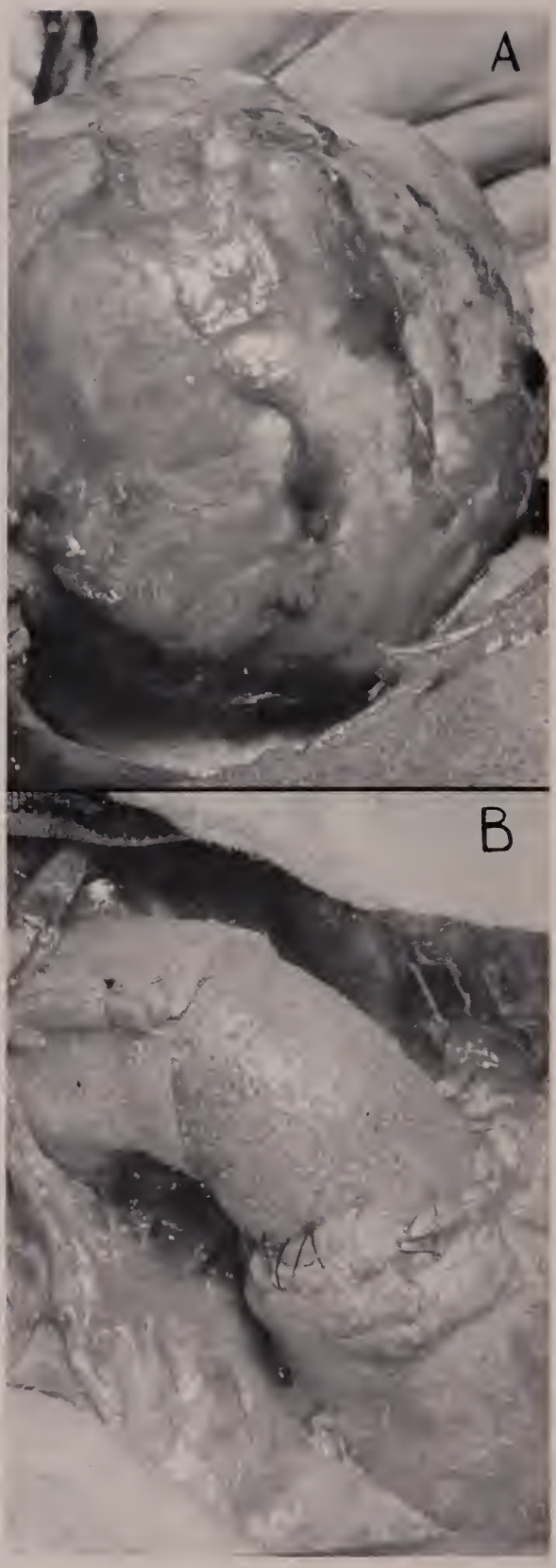


Fig. 5. (A) A large aneurysm of the thoracic aorta just distal to the origin of the left carotid artery. (B) Successful replacement of the distal aortic arch by an Ivalon arterial prosthesis. (Note the use of an Ivalon "belt" to reinforce the proximal anastomosis.)

Table 4. Aneurysms Repoired with Arterial Homografts

Artery	No.	Successful	Failure	Expired
Thoracic Aorta	1			1
Aortic Abdominal	16	13	2	1
Aortic Bifurcation	11	7		4
Total	28	20	2	6

operation. One abdominal aortic homograft ruptured 14 days after its insertion and the patient expired. In two other instances the homografts ruptured at the time of surgery but were successfully replaced with other arterial prostheses. (See figure 3.)

Nylon

Twenty aneurysms were replaced with nylon arterial prostheses of the Edwards-Tapp type (table 5). Nineteen were of the abdominal aorta

Table 5. Aneurysms Repaired with Nylon Prastheses

Artery	No.	Successful	Failure	Expired
Abdominal Aorta	2	2		
Aortic Bifurcation	18	13	1	4
Femoral	1	1		
Total	21	16	1	4

and one was in the femoral artery. One prosthesis thrombosed during the operation but was satisfactorily replaced with an arterial homograft. Nylon has the great disadvantage of permitting blood loss through the graft substance during the initial three to four minutes of its function. (See figure 4.)

Autogenous Grafts

Autogenous saphenous vein was used in replacement of 5 peripheral aneurysms (table 6).

Toble 6. Aneurysms Repaired with Autogenous Saphenous Vein

Artery	No.	Successful	Failure	Expired
Axillary	1	1		
Popliteal	4	3	1	
Total	5	4	1	0

Where the graft must withstand a high degree of flexion and foreshortening (axillary, cervical and popliteal areas), the saphenous vein autograft is felt to be the only one suitable. One such graft thrombosed 18 months after insertion into the popliteal artery but all the others have been successful.

Repair

In 11 instances the aneurysm was repaired either by direct anastamosis of the mobilized

Table 7. Aneurysms Repaired without an Arterial Graft

Artery	No.	Successful	Foilure	Expired
Carotid	1	1		
Thoracic Arch	2			2
Thoracic Aorta	2	2		
Abdominal Aorta	6	3		3
Total	11	6	0	5

segments of the divided artery or by aneurysmorraphy (table 7). In six instances this technique was successful and in five others, the patients expired. Failure was usually associated with attempts to repair ruptured aneurysms. As a general rule, it is felt that excision of the diseased segment is preferable to plastic repair of the dilated artery which permits some diseased vessel wall to remain.

Risks

The old problem of accepting surgical risk is a large one when considering aneurysm removal in the aged. However, if one decides on a conservative course, he must accept high incidence of rupture and the poor prognosis in such event (69 per cent mortality), (table 8). Surgical risk

Table 8. Arterial Aneurysms

	No.	% Successful	% Failure or Expired
All Aneurysms Resected	114	76	26
Elective Operations	96	87	13
Ruptured Aneurysms	18	29	69
Thoracic Aneurysms	13	38	62
Abdominal Aneusysms	91	82	18
Peripheral Aneurysms	10	90	10

seems less formidable in view of the fact that there was only one death in this series associated with elective excision of an abdominal aortic aneurysm.

Technical problems attendant upon excision of thoracic aneurysms are great and are reflected in the 62 per cent mortality in the present series. A pump oxygenator was utilized in three instances to by-pass the lesion during its removal, thus perfusing the abdominal viscera with oxygenated blood (Figs. 5, 6). An aorta or left auricle to femoral artery shunt, assisted by a pump, was used in two more instances for the same purpose. Arfonad* was used in most instances during excision of thoracic aneurysms to prevent the severe upper extremity hypertension caused by clamping the thoracic aorta at a high level. If it is not prevented, the left ventricle will fail rapidly and cardiac arrest will develop.

Relatively new techniques have caused us to feel that most thoracic aneurysms are now at least theoretically resectable. If only the later cases in which these techniques have been employed are considered, mortality from the operation is acceptable. Much will be done to advance these surgical techniques but even now the extremely high incidence of fatal rupture and the

*Tri-methaphan camphor sulfonate ½ per cent solution, Hoffmann-LaRoche Company.

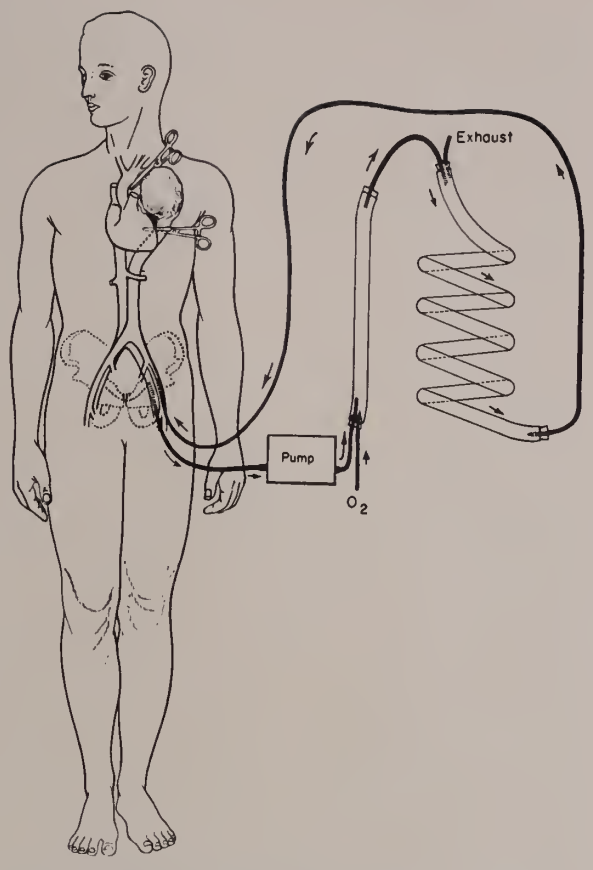


Fig. 6. Schematic diagram of the use of a pump oxygenator (DeWall Lillilei type) in the resection of thoracic aneurysm (Fig. 5).

poor outlook for conservative approach (three years) encourage favorable consideration for surgical excision.

Relief of symptoms following excision of an aneurysm is usually dramatic. Abdominal discomfort is relieved at once as is abdominal pain. In instances of radicular type pain referred to thighs or legs, relief may be delayed. Source of these symptoms is not clear. They may be due to direct physical encroachment of the aneurysmal mass upon the lumbar plexus; they may be due to referral from sympathetics over the aneurysm, or they may result from ischemic changes following occlusion of the lumbar arteries by extension of the intraluminal clot. Of 7 patients who had severe leg pain, 4 had immediate relief, while in 3 the symptoms remained for three, four and six months, respectively.

Conclusion

In repair of 114 arterial aneurysms, 49 compressed polyvinyl sponge prostheses, 28 arterial homografts, 21 nylon prostheses and 5 saphenous

vein autografts were used. In 11 instances arterial continuity was reestablished without use of a graft. The procedure was successful in 78 per cent of all aneurysms operated upon and in 87 per cent of those undergoing an elective procedure. In only 29 per cent of this series was it possible to salvage the patient after the aneurysm had ruptured.

Recovery of the patient following major arterial surgery has been dramatic, even in the highest age groups, with the average hospital stay being only 10 days. It is felt, that if blood loss is kept to a minimum and the anaesthesia well controlled, the procedure may be undertaken electively with a minimum of risk.

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Bolivia—A Case Study in Foreign Aid

Bolivia rates as the South American country receiving economic aid from the United States. The program was started in 1953 to tide the country over a "temporary emergency." But for the past three years the United States has been contributing twice as much for public purposes in Bolivia as the Bolivian taxpayer. This has neither restored the economic balance nor assured stability in Bolivia. Plans to taper off U.S. aid are being shelved each year and appear dimmer now than ever.

Bolivian aid is listed in the U.S. Budget as "defense support" although it would require a great deal of imagination to visualize what bearing this country in the center of South America, without an army or a seacoast, has upon the defense of the United States.

Bolivia's trouble stems from a bloody revolution in 1952 which threw the country into a turmoil from which it will be long recovering. The new government nationalized the mines, expropriated the farm owners, sent a large segment of its educated class into exile, and drove private industry and commerce toward bankruptcy. Within a year Bolivia's people were starving and the government was in trouble up to its neck.

It is quite likely that another revolution would have driven the government out no later than 1954 if U.S. aid had not come to its rescue.

Most of the U.S. aid was used not to strengthen local productive capacity but to boost imports and support consumption. This discouraged local production and enabled the country to live beyond its means.

The government so far has shown no inclination to cut its expenditures to a level which Bolivian taxpayers are willing and able to support. Bolivia's tax load is low. At 5 to 7 per cent of gross national product it compares with a tax burden of 25 per cent of the gross national product in the United States.

Income tax collections dropped from an average of $3.5 million between 1948 and 1952 to $0.5 million by 1956. Property taxes shrank from $0.5 million to $124,000. Mine royalties used to be a mainstay of the Bolivian budget. But the government corporation which took over the mines in 1952 paid none. Royalties were re-established in December 1956 by supreme decree as part of the stabilization plan. But so far none have been paid.

The tin and tungsten mines are Bolivia's only source of foreign exchange besides U.S. aid. They used to be profitable. But soon after nationalization, the mine payroll swelled from 26,000 to almost 40,000, and production declined. The mines showed vast deficits which the government covered by printing more banknotes.

The low productivity of labor is the main reason for the high costs of production in the mines, in petroleum, in agriculture, for the excessively large staffs of the ministries and the high cost of government.

At many jobs there are twice or three times as many people as are needed. To watch them "at work" is a frustrating experience to Americans.

By Mr. Roger A. Freeman in The Freeman, December 1957, Volume 7, pp. 32-37.

The Vomiting Child

Recognition of a Surgical Cause

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Diagnosis of the underlying cause of vomiting in an infant or child sometimes sets the doctor a difficult problem, one that has to be solved largely by clinical judgment. Between the fear of an unnecessary operation—which may be as harmful to an ill child as it is depressing to the doctor's sense of responsibility—and the anxiety over missing a dangerous surgical condition, lie many hours of observation and care. Although it may appear that most acute diseases of childhood are attended by vomiting, the common surgical lesions which are responsible for this symptom are mechanical obstructions of the alimentary canal, and pyogenic inflammation inside the peritoneum. In surveying the subject as a whole, and regarding my own material over the last five years, certain clinical points stand out as means of distinguishing these surgical conditions from diseases not requiring operative treatment.

Mode of Onset

While it is a truism of medicine that a careful clinical history is of the first importance, the way in which the symptoms of illness first present in a vomiting child gives a particularly valuable diagnostic clue. Each surgical lesion has its own pattern of onset. The troublesome "salivation" of a newborn gives an observant nurse the first hint of a tracheo-esophageal fistula, and has been the basis of early investigation and diagnosis in two of my recent cases. Gradual onset of regurgitation of gastric contents after some days of normal feeding in a newborn, is a well recognized feature of congenital pyloric stenosis, helping to distinguish it from an incontinent cardia or from pyloro-spasm. Such an onset is the opposite of what is to be looked for in another grave obstruction in infants—intussusception. In a case of intussusception, inquiry of the parents will usually reveal that the illness started abruptly, the healthy child suddenly crying and then going pale and quiet, possibly sweating, in a brief period of collapse before crying is resumed. I depend considerably on this history in diagnosing intussusception, of which the following case is a good example.

L. L., aged 4 years, was sitting on his grandfather's knee in the evening and suddenly fell backwards onto the floor, striking his head. He was picked up pale and listless, and in a few minutes he vomited. Injury to the brain was suspected and the child was admitted to the hospital neurosurgical service. Other signs of brain injury were absent, and on questioning the grandfather it became evident that the child had not accidentally fallen from the knee but had suddenly stiffened and thrown himself backwards. Such an onset followed by shock raised the suspicion of intussusception, and it was not surprising to find that vomiting continued and abdominal distention began. Operation was performed to find an irreducible ileo-ileal intussusception, requiring resection in two stages.

In another case in which intussusception occurred three times, the mother was so struck by the sudden onset of pain and the brief period of shock at the start of the first attack, that she quickly recognized the recurrences on the next two occasions, bringing the child to the hospital with the laconic statement, "He's done it again!"

It is perhaps enough to give these examples, and to emphasize that other illnesses in which a surgical condition causes vomiting have their own pattern of onset, which if studied in detail will guide the doctor in his thinking, whether the problem is a rare one like mal-rotation of

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the gut with volvulus in early infancy, or the common one of acute appendicitis later in childhood.

Progression of Symptoms

The "surgical abdomen" is rarely a self-curing one, but tends to get worse. Observation over a period of hours will reveal the progression of symptoms and the exacerbation of physical signs. Only the surgical-tyro with itching fingers will wish to operate on a vomiting child until the need for operation is made manifest by a period of watching. When there is an underlying surgical condition, not only do the symptoms and signs of illness continue, but they progressively worsen. Over a period of four to eight hours the changes can be noted and, if there is no progression of symptoms, further watching will be justified. In the last three years I have seen three newborn infants whose symptoms were vomiting of bile-stained material associated with abdominal distention. Over a period of two days the condition remained unchanged, the baby still vomiting and still with a distended intestine. But the vomiting remained biliary and the pattern of distended gut did not enlarge. Because of the findings and the failure to improve, operation was performed on the first two babies and no surgical lesion of any kind was found. In the third baby, operation was advised against, on basis of the above experience, and slowly the condition subsided.

When the increase of symptoms and signs indicates a need for operation, we accept the result as the normal diagnostic process of surgery. But when the doctor's clinical judgment advises against operation, it is not only a very anxious decision, but a triumph to remember when the ill child is well again. Such an example was a boy of 3 years with a staphylococcal septicemia. Under the influence of antibiotics the condition was slowly brought under control, and after a week the boy seemed to be recovering when he developed generalized abdominal pain, rigidity and vomiting. Blood culture was at this time negative. The abdomen was equally tender all over, and the rigidity was maximal on the left side. Since a generalized septicemia will sometimes end with formation of a "fixation abscess," I was inclined to think that a primary peritonitis was likely cause of the symptoms. The child was carefully observed; temperature and pulse did not deteriorate further; pain and rigidity remained about the same; vomiting was intermittent but not increasing, and with further use of antibiotics plus intravenous fluids this new alarm subsided over four days of meticulous observation. Lack of progression of symtoms and signs in a carefully observed child was the basis for withholding operation at a difficult time.

It is, of course, possible to wait too long in making a decision for or against operation. Accurate observation is not meant to be a cloak for timidity or procrastination. We have all seen late cases of peritonitis in children ignored or treated with purgatives or tranquilizers. These patients were *not* observed, and the evidence of progression was not noted. It has been my experience that it is usually possible to tell within a period of six to eight hours whether the progression of events is going against the child.

Presence of Certain Physical Signs

(1) *The vomitus.* It is of obvious importance to recognize the quantity and quality of fluid vimited—whether gastric contents, containing bile, or intestinal in nature. Though the vomiting of biliary material indicates only a serious degree of vomiting, not necessarily obstructive, it should certainly alert the mind to the possibility of an obstruction. On the other hand, a vomitus of brownish intestinal fluid is sure evidence of an intestinal block which may be paralytic or mechanical in origin, but it is a late sign of such serious significance that diagnosis should not wait on its development.

(2) *Distention.* If an obstructive lesion is high in the alimentary canal, there will be no abdominal distention except of the stomach. However, if gastric distention is evident (seen through the abdominal wall or on x-ray of the abdomen) and is *persistent*, it presumes an obstructive lesion. The waves of gastric peristalsis in the presence of chronic pyloric obstruction are well-known as a diagnostic pointer in congenital pyloric stenosis.

An obstructive lesion lower down in the small gut will produce characteristic central distention with visible dilated coils. But if obstruction is in the distal colon, the shape of the abdomen is quite different, and there is distention of the flanks as well as centrally, as seen in acute Hirschsprung's disease or in atresia of the colon. I recall a 5 day old infant with such distention plus fecal vomiting. A finger could be introduced per rectum without difficulty. The distention in the flanks indicated a large bowel obstruction and, as the child was almost in extremis,

a simple transverse colostomy was performed through a small incision in the epigastrium with dramatic improvement. Subsequently the obstruction proved to be due to an a-ganglionic segment of rectosigmoid (Hirschprung's disease), which was treated successfully at the age of 1 year by the Swenson pull-through colectomy.

The other important feature of distention when caused by a surgical lesion is that it is progressive. Taken by itself, moderate abdominal distention would not be a reason for operation. An increase in the swelling over a period of hours would be strong evidence of an underlying obstruction—though not in itself indicative of the nature of the obstruction.

(3) *Tenderness.* The experienced doctor learns the feel to the hand of the acute abdomen, and with the hand resting gently on the abdominal wall can appreciate the tenderness and the degree of muscle guarding or true involuntary rigidity which indicate with certainty the presence and extent of an underlying inflammatory lesion. It is no more possible to describe this readily in words than it is to take an intern's opinion about it on the phone. The abdomen simply has to be felt by the doctor in charge. There is a great difference between the tenderness and muscle guarding set up by *gentle* pressure with the flat of the fingers when there is an underlying pyogenic inflammation, and the softer more doughy resistance of such nonsurgical inflammations as mesenteric adenitis or enteritis. Acute mesenteric adenitis—so common in childhood—can usually be differentiated from acute appendicitis on clinical evidence, of which the feel of the abdomen with lack of that acute sensitivity to gentle palpation is the most important sign.

(4) *Presence of a Lump.* It is an old adage that we find only what we are looking for, and it is important to remember to look for a lump in a vomiting child. It takes time and patience to feel the pyloric tumor in a 3 week old crying male, and I do not have a 100 per cent score by any means! There are those who claim always to be able to feel this muscle tumor when it is present, and it is certainly true that the lump is there to be felt by those blessed with patience, gentleness and perseverance. The same is true of the intussuscepted bowel mass in intussusception, though the rib cage may prevent palpation of the lump when it is in the distal transverse colon.

Perhaps the most important lump of all to look for in a vomiting child is one at the hernial sites that is easy to miss in the fat pad of a child's groins. A recent case is illustrative. A plump female baby of 6 months was admitted to the hospital with vomiting and diarrhea, and was treated as a case of enteritis. X-ray showed dilated coils of small gut and the question of malrotation was raised. The diarrhea increased and the vomiting was progessive. Examination at this time showed in the right inguinal region a tense swelling the size of an olive, buried in the fat of the external ring, and only obvious on the most thorough palpation. Operation was performed to reveal a strangulated Richter's hernia, already showing a gangrenous constriction ring.

A lump however is not always indicative of a surgical condition. A mass of glands in the mesentery may be so localized as to form a tender, demarcated swelling in the right lower quadrant or along the root of the mesentery. Mildness of the symptoms and lack of acute tenderness or reaction around the lump gives the clue to its nonsurgical nature.

Ancillary Aids

Laboratory work is not of particular help in distinguishing between surgical and nonsurgical conditions in the vomiting child, and undue reliance on laboratory findings rather than on clinical judgment can do positive harm. I have seen surgical consultation deferred because right sided pain, tenderness, pyrexia and vomiting were accompanied by a few blood cells in the urine. Presumption of a pyelitis excluded consideration of acute appendicitis until the onset of peritonitis awakened the doctor to a true realization. In this case a gangrenous appendix lay retrocecally alongside the ureter.

It is not uncommon in patients with acute appendicitis to find a white cell count of only 9,000 and I had a patient with acute mesenteric adenitis whose while cell count climbed to 26,500, 78 per cent being polymorphonuclear cells. Laboratory findings have to be weighed and considered in the management of the child, but they are not in themselves of particular diagnostic value.

An x-ray of the abdomen can be a comforting confirmation of the presence of a distended stomach or of dilated coils of bowel, and may be of additional help in locating the site of obstruction. It is equally useful in excluding a distended bowel, and therefore an obstruction, when vomiting is the main symptom. The use of barium

contrast is more debatable. A barium enema will help to demonstrate an intussusception in the unusual instance where there is doubt about the clinical diagnosis. There is only a little danger in such investigation, but if the barium cannot be evacuated, and if operation has to be performed subsequently, the barium in the bowel is at best a nuisance and may be worse.

Giving of barium into the stomach in the presence of an obstruction can be done through a catheter, but in my view the information this makes available is of doubtful accuracy, and does not justify the hazards of the method as a routine inquiry. It is difficult to recover the barium and, if vomiting persists, some chemical will enter the lungs where it is particularly irritating. Following release of an obstruction, barium in the large bowel is sometimes hard to expel, and is certainly a hindrance at operation. If the method could be used with the precision we now enjoy in the x-ray diagnosis of, say, peptic ulcer, drawbacks might be forgiven, but such accuracy is not possible. Two examples are illustrative. The first, a boy of 4 weeks who was vomiting. X-ray showed that the stomach emptied quite well and that the barium reached the small gut. Yet operation revealed the characteristic muscle tumor of congenital pyloric stenosis, and the baby was cured by a Ramstedt's myotomy. The second, an infant of 6 weeks who also was vomiting. Barium x-ray suggested mal-rotation because of the direction and dilatation of the duodenal loop. Operation revealed no anatomic abnormality, and no surgical lesion as cause of the vomiting.

There is an awakening of interest in the use of water soluble contrast media in the diagnosis of bowel obstruction in infants, and with experience this method may justify its use. But for the present I believe the diagnosis of a surgical lesion in a vomiting child is largely a matter for clinical judgment and skill, and one in which the art of medicine can provide a high degree of accuracy and clinical reward, based on the details of the history and a watchful appreciation of physical signs.

330 Medical Arts Building (5).

Ulcerative Colitis Foundation Formed

With the encouragement of the National Institute of Arthritis and Metabolic Diseases, a new medical research foundation has been organized to promote research in ulcerative colitis. Joseph B. Kirsner of the University of Chicago, chairman for the conference where the new project was announced, said it was "an essential step toward finding the cause and cures for this dreadful disease." Mr. Miles Fiterman, Minneapolis businessman who heads the foundation, said plans are to provide researchers with "continuing and guaranteed funds" for research. He explained that one of the foundation's purposes is to "provide a climate for research that will attract outstanding men so that more progress may be made in solving the problems of ulcerative colitis just as progress had been made in recent years in the fields of polio and heart disease." The foundation's medical advisory board includes Dr. Kirsner, Walter L. Palmer of the University of Chicago, Jacob A. Bargen of the Mayo Clinic, Julian M. Ruffin of Duke University and president-elect of the American College of Physicians, Stewart G. Wolf, Jr., of the University of Oklahoma, and Owen H. Wangensteen of the University of Minnesota and Howard P. Lewis of the University of Oregon.

Duodenal Ulcer As an Etiologic Factor in Gastric Ulceration

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Study shows that duodenal ulcer usually appears first, when found with gastric ulcer, and may be etiologic. Medical treatment may not suffice. Malignancy should be considered in gastric ulcer without concomitant duodenal ulcer.

Gastric ulceration has been noted by only a few to be associated frequently with the deformity of duodenal ulcer. This is surprising in view of reports of increased gastric secretion and actual ulceration associated with pyloric obstruction.

Friedman[1] noted in 1914 that gastric ulcers produced with silver nitrate healed quickly if the pyloris was not obstructed. In 1927 Ivy[2] noted hypersecretion in a Pavlov Pouch if the pylorus was obstructed. Pyloric obstruction was observed by Matthews and Dragstedt[3] in 1932 to cause ulcers in duodenal and jejunal transplants on the stomach. Shay[4] in 1945 and Harkins[5] in 1947, both utilizing the Shay rat, demonstrated hypersecretion and ulceration of the stomach following pyloric obstruction.

Clinical reports which implicate duodenal ulcer deformity in the pathogenesis of the gastric ulcer are infrequent. Emery[6] in 1931 found that 50 per cent of patients with gastric ulcer had six-hour retention following a barium meal. He further noted that when duodenal ulcer and gastric ulcer coexisted, relief of the duodenal obstruction by treatment was followed quickly by disappearance of the gastric ulcer. Huber[7] in 1948 reported two patients who had exhibited duodenal ulcer scarring for many years before they developed gastric ulcers. In 1955 Johnson[8] reported 119 cases of coexisting duodenal and gastric ulcers. Gastric retention was a common finding. He reported that one out of every six patients hospitalized for pyloric obstruction already had a gastric ulcer. The duodenal deformity was almost invariably noted to have antedated the gastric ulceration.

A cursory review of our patients with gastric ulceration suggested a relationship to duodenal deformity; therefore, a more careful study was undertaken.

Material

Fifty-nine patients with gastric ulcer were treated over the past four and one-half years in the 300-bed Seattle Veterans Administration Hospital. All patients were males. Age range was from 26 to 77 years. Average age was 55.4 years (Fig. 1).



Fig. 1. Gastric ulceration is a disease most frequently seen in patients between 55 and 65 years of age.

All gastric ulcerations were diagnosed by x-ray, excepting three which were found at surgery or at autopsy. All were lesser curvature ulcers.

Read before the Annual Meeting of The Seattle Surgical Society, Seattle, Washington, Jan. 25-26, 1957.

All duodenal ulceration or deformity was diagnosed by x-ray, at surgery or autopsy.

Observations

The patients seemed to fall into three groups:

1. Acute gastric ulcer with short duration of peptic ulcer symptoms. These invariably were associated with some other acute illness. (See figure 2.)

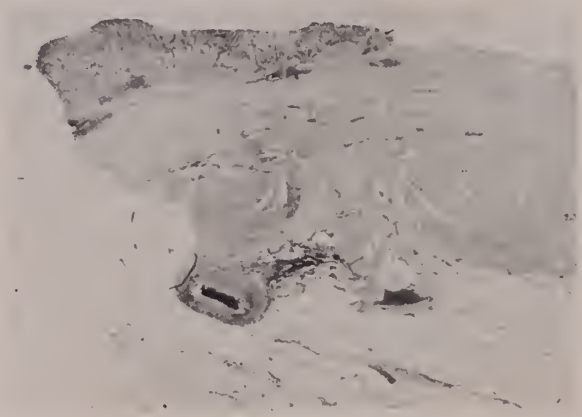


Fig. 2. Acute gastric ulcer is most often associated with some other acute illness. Note the superficial mucosal erosion without involvement of muscularis and with minimum of fibrosis. (x100.)

2. Gastric ulcer without associated acute illness and without duodenal ulcer deformity (Fig. 3).

3. Gastric ulcer without acute illness but with duodenal ulcer deformity (Figs. 4, 5, 6).



Fig. 3. Example of a gastric ulcer without associated acute illness and without duodenal ulcer deformity. This lesion is very difficult to distinguish from carcinomatous ulceration except by histologic examination.

Table 1. Summary of Patients with Gastric Ulceration

	No.	Ulcer Symptoms	Deformity of Duodenal Ulceration	Assoc. Acute Illness
Acute Gastric Ulcer	19	0-1 yr.	5	19
Gastric Ulcer Alone	20	7.5 yrs.	0	0
Gastric Ulcer with Duodenal Ulcer Deformity	20	12.7 yrs.	20*	0
Total	59		25	19

*Includes 2 cases of adult hypertrophic pyloric stenosis.

Of 59 gastric ulcer cases, 25 had duodenal ulcer deformity or pyloric obstruction.

There were 16 patients between the ages of 26 and 50 years. Eight (50 per cent) had associated duodenal ulcer deformity.

In the older age group, between 50 and 77 years, there were 43 patients. Fourteen of the 43 had duodenal ulcer deformity with the gastric ulcer. However, 15 of the 43 had an associated acute illness. Eliminating this stress group, the remaining 28 patients with gastric ulceration had a 40 per cent incidence of associated duodenal ulcer deformity.

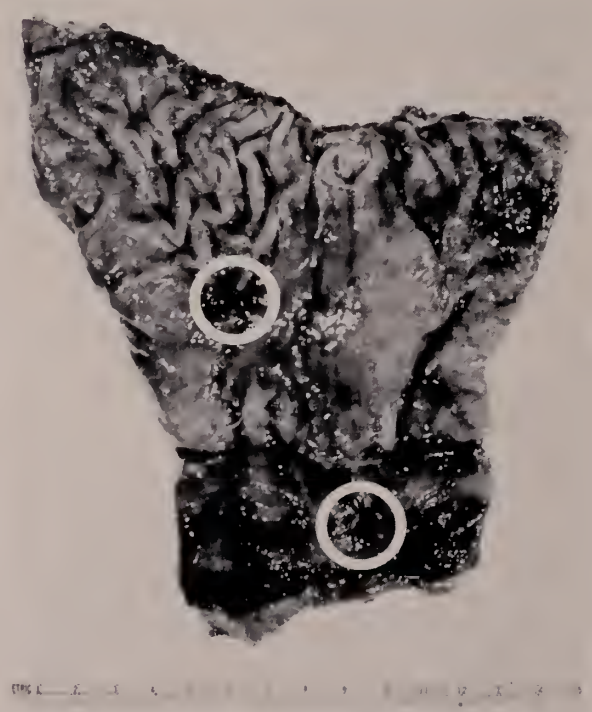


Fig. 4. Gastric ulcer coexisting with chronic scarred duodenal ulcer. Ulcers are encircled; both are deep and penetrating with much scarring of the base.

Discussion

The frequency of duodenal deformity with gastric ulceration was noted as early as 1917 by Carman.[9] Since then, in voluminous literature



Fig. 5. Gastric ulcer in a patient with chronic duodenal ulcer (same patient as in Figs. 4 and 6). Note the sharp "punched out" margins, minimal fibrosis and large vessels in base. (x100.)

on peptic disease and gastric ulcer, the problem has been noted by relatively few persons. Feldman[10] reviewed the literature in 1953 and found a range of 20 to 50 per cent from all authors. The incidence showed some variation, depending on the technique of case finding used.

Johnson[8] recently found that 25 per cent of patients with gastric ulceration had associated duodenal ulceration or deformity from previous ulceration. His observation methods were similar to those used by us.

It seems apparent that in patients with gastric ulcer there is a high incidence of duodenal ulcer deformity and that in the younger age groups this approaches 50 per cent. Aside from the stress gastric ulcer in the aged, there is a very high incidence of the two appearing concomitantly (40 per cent of our group). This frequent association is sufficiently high to demand consideration of duodenal ulcer as an etiologic factor in gastric ulceration. Huber[7] and Johnson[8] noted that duodenal ulcers occur very frequently prior to appearance of gastric ulcer.

Experimental findings of Dragstedt et al,[3,11,12] Friedman[1] and Ivy[2] support this thesis.

It seems possible that distal obstruction may play a part in the production of gastric ulceration. Johnson[8] showed 64 per cent incidence of gastric retention clinically or by x-ray examination in his patients with both gastric and duodenal ulceration. Our group shows 33 per cent with gastric retention. The presence of duodenal disease seems to alter motility in some fashion, even though mechanical pyloric obstruction is not demonstrable. The remarkable frequency of associated duodenal deformity suggests that it may be related to the pathogenesis of some gastric ulcers. Occasionally duodenal deformity was present as an acute ulcerative process but most often it was an old scar. This fibrosis and loss of bowel wall pliability could result in interference with normal propulsion of gastric secretions through the duodenum. Similarly, the bolus of food may have longer contact with the antrum and consequently cause greater volume of peptic secretion. The barium meal does not always reflect this altered physiology. It is possible that this is the mechanism involved. Dragstedt has postulated this, and from our patients this seems to be true except for one small group of patients—those with acute stress ulceration. Even stress ulceration in the stomach may be attributable to gastric retention—e.g., as is commonly seen in burns.

The final group of aged patients with gastric ulceration without duodenal malfunction and without an acute stress situation remains the enigma. Their lesions may be precancerous.



Fig. 6. Chronic duodenal ulcer in a patient with coexisting gastric ulcer (same patient as in Figs. 4 and 5). Note the marked fibrosis extending into Brunner's Glands, bespeaking its chronicity. (x300.)

From a therapeutic viewpoint, it would appear that gastric ulcer associated with duodenal deformity had best be treated by gastric resection or some adequate physiology-altering procedure or both, plus gastric drainage. It would appear further that attempts to treat such ulceration medically may be doomed to failure eventually.[13]

Summary and Conclusions

The occurrence of gastric ulcer in patients with duodenal ulcer or residue of duodenal ulcer

is more than coincidental, as attested to by several laboratory and clinical observations. A group of 59 patients with gastric ulceration has been studied. One-third of these patients sustained their gastric ulcers acutely and in association with another illness and, therefore, were considered as having stress ulceration. One-third of these patients had chronic gastric ulceration without any other disease and without duodenal disease or scarring. One-third of these patients had duodenal ulceration or deformity in association with the gastric ulcer. In the group of patients below 50 years of age with gastric ulcer, one-half had associated duodenal ulceration or deformity. If the stress ulcer group were excluded, 40 per cent of the older age patients had both lesions.

This suggests that duodenal malfunction plays a role in the genesis of gastric ulcer, and that where the two lesions coexist medical therapy may be difficult or impossible.

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MDs To See New Medicolegal Film in June

The AMA Law Department announces that "traumatic neurosis" will be the subject of the third film in the series of six medicolegal films to be produced in cooperation with the Wm. S. Merrill Company of Cincinnati. The film will delve into some of the problems that face psychiatrists and neurologists in identifying patients' psychoses resulting from various traumatic experiences. Physicians will have an opportunity to see the premiere showing of this film at AMA's Annual Meeting in June in San Francisco.

Previous motion pictures in the series include "The Medical Witness" and "The Doctor Defendant." Other films in the series will deal with in-hospital medical professional liability problems and forensic pathology.

Inguinal Hernia

Part I. Principles

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The principles of a good, sound reconstruction of the inguinal area are few and readily applied. That these principles are not being universally taught or applied effectively is reflected not only by that continuing index of confusion, the very bulk of the hernia literature (some 700 articles per decade), but by the wide variation among operators in rate of hernia recurrence.

It is little wonder that many physicians express a certain degree of uncertainty over the anatomy, and consequently the surgery, of inguinal hernia. One who attempts to study inguinal anatomy from the maze of the literature soon finds that structures are discussed which he does not see at the operating table, that various authors ascribe different names to what is essentially the same structure, and that some authors parrot the errors of their predecessors. As though faulty appreciation of the basic anatomy could be corrected by magical materials of repair, we find the literature crowded with claims and counterclaims for materials derived from animal (fascia lata, shreds of external oblique, cutis grafts, preserved fascia, heavy catgut and kangaroo tendon), vegetable (silk and cotton) and mineral (metallic shields and wire of silver and steel).

From my experience with 214 patients upon whom I have operated, I am convinced that the essentials of inguinal anatomy are simple, that they can be applied easily to surgical correction of the great majority of hernias, and that the surgery can be competently performed by those surgically inclined with a recurrence rate not over 2 or 3 per cent. These essentials are described in the pages to follow.

Death Rate from Hernia

In the normal distribution area of NORTHWEST MEDICINE (Oregon, Washington, Idaho and Alaska), it is estimated that about 30,000 people have uncorrected hernias, and in 1955 265 people died from the effects of hernia.[1] The death rate from hernia is almost entirely due to strangulating intestinal obstruction and, in fact, over 40 per cent of all cases of strangulating intestinal obstruction are due to incarceration in external hernias.[2] Put another way, the 265 people who died from hernia in the Pacific Northwest and Alaska numbered almost *twice* the total who died from appendicitis, poliomyelitis, scarlet fever and the usual childhood diseases. Furthermore, the death rate from hernia almost equals the death rate from all causes of peptic ulceration (8,654 *versus* 9,730, continental U.S.A., 1955).[1] Despite such statistics, there is a general apathy about the seriousness of hernia. This apathy is reflected even in the health policy of state government. As an example, 144 people in the State of Washington lost their lives in 1955 from hernia, yet Washington's Department of Public Assistance has taken a surgically indefensible position of refusing authority for elective hernia surgery!

Is It a Hernia?

Inguinal masses rarely confused with hernia are aneurysm, varicocele, lymphadenopathy, cord hydrocele and tumors of the constituent soft tissues of the abdominal wall. An undescended testicle is almost always associated with hernia, and correction of both conditions is mandatory, as malignant change in the testicle is about 2 to 3 per cent if it is not corrected or removed.[3,4] The differential diagnosis of direct from indirect and of inguinal from femoral hernia is of interest, but largely of didactic interest—the surgical approach is identical.

The Dilated External Ring

By itself, the dilated external ring is not an indication for surgery or for employment rejec-

tion. Anatomically, it is well established that the external ring varies in size among normal subjects. If the ring has been dilated by a large inguinal hernia, the hernial protusion itself should be so easily felt that the external ring dilatation is of only casual interest.

The Bulge at Hesselbach's Area

We find in many elderly patients a weakened and thinned transversalis fascia overlying Hesselbach's area. A slight bulge is felt. Is this a hernia? Certainly it can be so construed only in the most literal sense. An ill-defined line of good judgment must be drawn to separate these patients from those with a gross direct inguinal hernia.

Hernias in Children

These may be safely corrected in infancy if the anesthetist is mindful of adequate oxygenation, and if the surgeon is mindful of the ease with which he may injure the vascular supply to the testicle. About 15 to 20 per cent of pediatric hernia patients will have bilateral hernias,[5,6] the second side of which may not be apparent upon initial examination. Should a clinically uninvolved contralateral side be explored? Robert Gross, who formerly did both sides, in 1953 indicated that he had abandoned the procedure,[6] and in 1957 in a personal communication stated that he again was doing both sides. I explain the odds to the parents, and let them decide.

The technique of infant hernia surgery should be kept to its essentials: short, transverse incision over the internal ring; isolation of the base of the cord; dissection of a short sac from the cord; if sac is long, infiltration with normal saline between sac and cord to facilitate transection of sac near internal ring (distal sac is left *in situ* open-mouthed); suture ligation of the sac deep to the internal ring; narrowing of the internal ring by suture; and anatomic closure of the external oblique and skin.

In a series of 369 cases of recurrent hernia there were 12 patients who had had inguinal herniorrhaphy in childhood, 11 of the 12 recurrences appearing at the indirect site.[7] This would argue for adequate, secure ligation of the sac and narrowing of the ring, but not for a Bassini or Halsted reconstruction of Hesselbach's area.

Hernias in the Elderly

The risk of surgery in the aged has been grossly exaggerated at times by those not familiar with the physiologic ease of such surgery under ideal conditions of anesthesia and technique. Many elderly patients have contended with the trials of ill-fitting, ill-kept trusses only to be pleasantly surprised by the ease of their surgical recovery. Surgery should be undertaken only after the cure of any condition causing repeated groin strain. Determination of bladder residual should be a routine procedure in the elderly group. A keen suspicion of bowel tumor should lead to a careful colon history and possible barium enema. Chronic coughing should, in turn, be thoroughly investigated and corrected.

Inguinal Pain

Inguinal pain following exertion is not of itself an indication for surgery. Inguinal pain may indicate nothing more than a slight fascial or aponeurotic tear, which may heal without development of a hernia. Prolongation of inguinal pain without evidence of an inguinal mass at any of repeated examinations may be associated with the problems of neuroses or of industrial compensation. An inguinal mass should be found upon at least one examination before recommending surgery.

Anatomy of Inguinal Hernia

The surgeon is interested in tissues which will hold sutures. Erudite, Latinized discussions of nebulous middle inguinal rings, of filmy fascial strata, and of structurally unimportant anomalies are of little help in the practical understanding of inguinal anatomy.

The tissue of key importance in inguinal repair, the tissue which usually holds firm when sutured, is the transversalis fascia. This fascia is primarily the direct, the inferior extension of the transversus abdominus muscle. It receives only minor contributions from fine muscular insertions off the internal oblique.

In the past, references have been made to suturing the "conjoined tendon" either to inguinal or Cooper's ligament. The so-called conjoined tendon, when present at all, is short and almost never extends for more than 1.5 cm. lateral to the rectus sheath.[8,9] The stout structure found lateral to the rectus sheath margin is in actuality the transversalis fascia.

The transversalis fascia, which is the fascial extension of the transversus abdominus muscle, usually has the following properties. It is thinned, overlying Hesselbach's triangle. Its stronger portion *underlies* the free edge of internal

oblique (and the latter must be dissected back to see the tough portion of the fascia). Lateral to the internal ring its fibers begin to condense and thicken as they sweep medially across the femoral vessels to form the femoral sheath. It decussates around the cord to meet again medially, thus forming the internal ring. It is markedly attenuated as it reaches its insertion into Cooper's ligament.

If the stoutest superior structure is the transversalis fascia, what is the best anchor inferiorly to which it may be approximated, thus to bridge Hesselbach's area? Historically, the inguinal ligament has been that anchor. Some 15 years ago the idea of using Cooper's ligament was repopularized,[10-12] the primary arguments being that it was anatomically the natural insertion for abdominal strata deep to the external oblique, that by using it the femoral canal was essentially closed to hernia, and that the inguinal ligament was at best a moveable object below which hernias might conceivably occur as it was sutured upward.

From a practical standpoint, Cooper's ligament repairs have certain drawbacks. More tension is created on the suture line, partially remedied by rectus sheath relaxation incision. Repair of bilateral hernias at one operation by this technique, even with rectus incision, places undue stress on the sutures. Danger of injury to, or thrombosis of, the femoral vein is increased owing to inclusion of the vein as a strut in the repair. That is, as Zimmerman[13] pointed out, Cooper's ligament repair is a stepladder affair in which the ligament is used for the medial, femoral vein itself for the central, and femoral sheath (in reality, transversalis fascia extension) for the lateral portion of the herniorrhaphy.

The preponderance of surgeons appear to be presently using either a Bassini or Halsted repair for routine herniorrhaphy.[14,15] Cooper's ligament herniorrhaphy seems widely accepted for femoral hernias, and by some for recurrent and large direct hernias. It is very likely that entirely satisfactory results will be obtained by careful surgeons using either inguinal or Cooper's ligament repairs.

Essentially, then, the surgical target in inguinal hernia forms a letter "V," the apex of which is at the pubic tubercle. The superior limb of the "V" is formed medially of rectus sheath, laterally of transversalis fascia. The inferior limb is the stout inguinal ligament. When the limbs of the "V" are brought together with sutures, both the transversalis fascia and the inguinal ligament stretch a little. Should a femoral defect exist, the inferior limb of the "V" is properly Cooper's ligament, passing laterally to femoral sheath.

Why Do Recurrences Occur?

Recurrences have been well documented in the literature.[16-22] They are almost evenly distributed between indirect and direct recurrences, and of those recurring as direct hernias, the majority are found near the pubic tubercle.[21] Major reasons for recurrence are failure to elevate the cord and use transversalis fascia, use of absorbable sutures, tension on the suture line, failure to recognize a direct or femoral component in treating an indirect hernia, and improper treatment at the internal ring. Specifically, proper treatment at the internal ring includes: securely ligating the sac deep to the internal ring, minimizing cord bulk, and narrowing the internal ring. Other factors which should be cited include failure to recognize an indirect sac, dependence upon red tissue in the repair, infection, obesity occasionally, undue intraabdominal straining (urethral obstruction, chronic coughing, difficult bowel movements), and poor tissues. The latter is often the crutch upon which some rest to explain poor results, results which could be improved by attention to the details of good herniorrhaphy and, in particular, identification of and maximum use of the transversalis fascia.

An indirect sac, though small, has been said by some to exist in all persons. It would seem that an over-diligent surgeon may draw outward a tuft of peritoneum, mistaking it for an indirect sac. "In a series of several hundred specimens without hernial sac or patent processus vaginalis, it was observed that not the slightest peritoneal protrusion, or even small foveate depression occurred at the abdominal inguinal ring."[23]

Accurate percentage recurrence figures are notoriously difficult to assemble. With nonabsorbable suture technique using transversalis fascia, recurrence figures are reported in the neighborhood of 3 per cent or less, and Ryan reported no recurrences within six months in 7,000 primary and 369 recurrent herniorrhaphies.[7]

Summary

Anatomic principles emphasized are the following: transversalis fascia, not "conjoined tendon," is the primary material of repair; transversalis fascia is almost entirely derived from

transversus abdominus muscle; femoral sheath is a condensation of transversalis fascia, and as such, is a component part of that fascia; and patent processus vaginalis is not a normal, but a pathologic finding.

Each year about 265 people within the expressed publication area of this journal die from the consequences of uncorrected hernia, a death rate which almost equals the entire death rate from all complications of peptic ulceration. These deaths from hernia are essentially those of strangulation obstruction, external hernia accounting for over 40 per cent of all such intestinal obstruction.

Early repair of infant hernia is accomplished by ligation of the sac deep to the internal ring, and then narrowing the ring without further attempt at reconstruction.

Problems of recurrence include absorbable sutures, failure to recognize the second component of an inguino-femoral hernia, improper treatment at the internal ring, and inadequate use of transversalis fascia.

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Diphtheria in Twin Falls, Idaho

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Low index of suspicion allowed full blown epidemic of diphtheria to develop at Twin Falls. Complacency, based on rarity due to effective control measures, could permit similar outbreak in any community.

In 1953 there was a total of 87 reported cases of diphtheria in Idaho. This represents a case rate of 14.5 per 100,000 population compared to the U.S. total of 1.5 per 100,000. Forty-seven cases occurred in Twin Falls County where the disease assumed epidemic proportions. Prior to the described outbreak, only 8 cases had occurred in this county since 1945, with a maximum of 3 per year. In addition to 47 clinical cases, 34 carriers were found. Ninety-two per cent of the cases occurred in a five-week period from February 1, 1953 through March 7, 1953 (Chart I). The epidemic peak was noted to be in the last week in February, with the onset of 17 cases. The age distribution of cases (Chart II) showed 46 per cent of cases in children under 14 years of age, and 54 per cent in the age group above 14. In the county, the maximum age specific attack rate was in the 15 to 19 year group, with 225.9 cases per 100,000 population compared to the attack rate in the county population as a whole of 111.3 cases per 100,000. One

CHART I

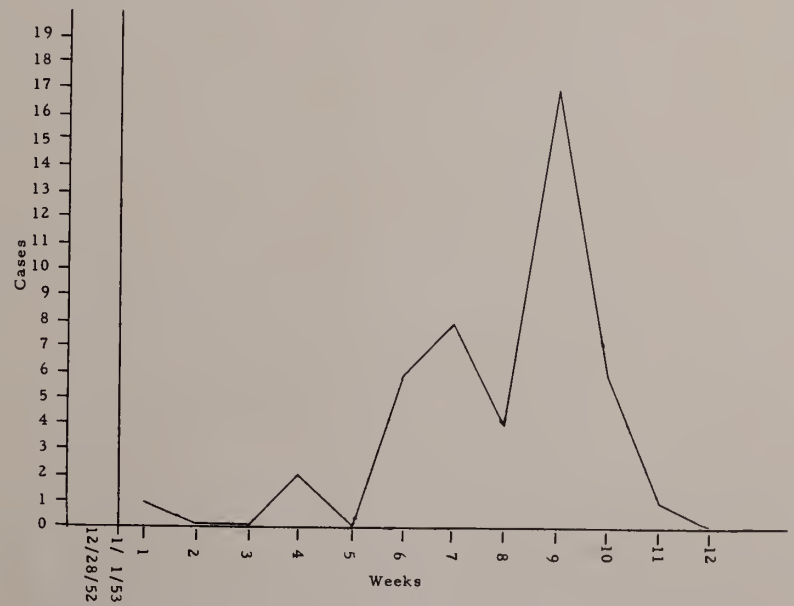


Chart I. Diphtheria cases by week of anset from January through March 1953 in Twin Falls County, Idaho.

CHART II

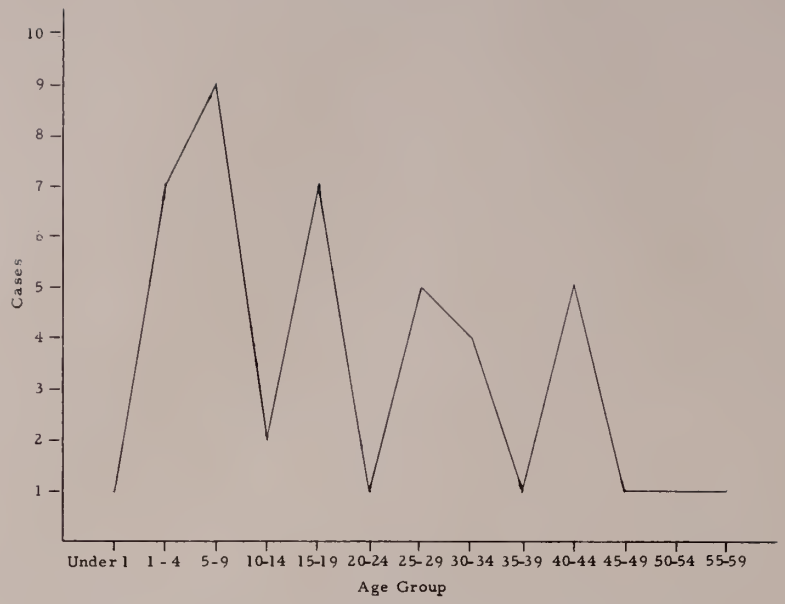


Chart II. Diphtheria cases in Idaho during 1953 by age group breakdown.

fatality occurred, giving a death rate of 2.3 per 100,000, compared to the national rate of 0.1 during the year.

Epidemiology

Diphtheria is an acute specific infectious disease characterized by local infection and general toxemia. The local lesion usually involves an epithelial surface, usually the throat, tonsils, larynx, nose or it may complicate a wound. In the classical form the lesion is pseudomembranous. The false membrane, formed primarily of interlaced necrotic cells, fibrin and bacteria, is remarkably tenacious and adherent. The organisms as a rule do not invade the tissue but multiply in the mucus of the surface epithelium. The powerful exotoxin, which is a coagulable protein, causes necrosis of the epithelial cells which become a part of the pseudomembrane overlying the ulcerated lesion produced. Removal of the membrane leaves a bleeding surface. The size of the membrane is generally proportioned to the quantity and rapidity of absorption of toxin. Extension of the membrane to the nasopharynx is usually associated with a more severe and malignant type of the disease with extreme toxicity resembling sepsis. Primary tracheal diphtheria is rare. Extension of the membrane to the trachea poses a different problem. The membrane is not likely to be as adherent, does not produce equivalent toxic symptoms, but is more likely to cause obstruction. The exotoxin produced by *Corynebacterium diphtheriae* is soluble, heat labile, and is nephrotoxic, cardiotoxic, and neurotoxic. Practically all of the clinical symptoms of diphtheria can be produced by the toxin experimentally.

Diphtheria is a disease of man; there is no satisfactory evidence that other animals are naturally infected. The source of all infections is a case or carrier, the latter constituting the ultimate reservoir responsible for perpetuation of the disease within a community. Contact with a case is, however, more likely to result in infection than is equal contact with a carrier.

Most diphtheria patients harbor the organisms for about two or three weeks, though a small percentage continue as convalescent carriers for several additional weeks or months. In rare instances, the carrier condition may persist for longer periods.

The diphtheria carrier harbors the organisms in the nose or throat, where the bacilli grow in diseased lymphoid tissue, usually the tonsils, adenoids, or nasal polyps. Many chronic nasal carriers show the presence of foreign bodies, but the condition disappears upon removal of the object.

Source of Epidemic

The first diagnosis of a diphtheria case in the Twin Falls epidemic was made as a result of laboratory confirmation after the attending physician had become suspicious of the characteristic

odor of a patient's breath and had taken a culture to prove his diagnosis. Prior to the first confirmed, diagnosed case, a number of membranous septic sore throats, presumed to be streptococcal, had been treated by physicians in the area. This probably accounted for a number of missed cases and is possibly why the epidemic spread so rapidly. Case No. 2 was one of the treated individuals who was the only possible source of infection for several of the later cases, yet a positive culture could not be obtained from her as she had been given treatment with penicillin for a severe "strep" throat which improved rapidly.

Original source of the epidemic was a young child who was the ringbearer at a wedding in Wyoming. A young woman from Twin Falls attended the wedding and slept with this child. The child developed membranous croup and subsequently had a tracheotomy. The young lady returned to Twin Falls and on December 30, 1953, developed diphtheria. This girl and her roommate were both telephone operators who associated with several people in the Buhl area, among whom was Case No. 3.

Cases 1 and 3 infected family members and others, and from there the disease spread rapidly. In addition to the active cases, carriers developed who helped spread the disease even further. Before they became ill or there was a diagnosis made, the carriers and cases attended school, went to church or to their places of employment. Classmates, playmates, friends, and acquaintances—all were exposed. There were sources of infection found linking most of the cases and carriers with their contact. (See tables 1 and 2.)

Table 1. IDAHO DIPHTHERIA CASES 1953

Case	Sex	Age	Onset	Contact Case	Immunized
1.	F	19	12/30/52	Wyoming case	Yes
2.	F	56	1/21/53	?	Yes
3.	M	17	1/24/53	1	No
4.	M	6	2/ 1/53	1C	Yes
5.	F	15	2/ 4/53	1C	Yes
6.	M	7	2/ 5/53	4	No
7.	F	6	2/ 5/53	5;1C	No
8.	M	7	2/ 5/53	2	Yes
9.	M	9	2/ 7/53	4-5	No
10.	F	42	2/ 8/53	5	No
11.	F	42	2/ 9/53	2-8	No
12.	F	41	2/10/53	?	No
13.	M	8	2/10/53	6	No
14.	F	44	2/11/53	5	No
15.	F	15	2/12/53	5	Yes
16.	M	18 mos.	2/12/53	5	No
17.	F	32	2/14/53	2	No
18.	F	7	2/15/53	4-1C-2C	No
19.	M	25	2/15/53	2	No
20.	F	26	2/18/53	19	Yes
21.	F	17	2/19/53	9-15-5	No
22.	F	45	2/22/53	13	No
23.	F	30	2/22/53	10C	Yes
24.	F	34	2/22/53	11C-12C	No
25.	F	29	2/22/53	14	No
26.	F	11 mos.	2/23/53	14	Yes
27.	F	22 mos.	2/23/53	14	No
28.	M	1	2/23/53	?	No
29.	M	2	2/23/53	?	Yes
30.	M	26	2/23/53	19	No
31.	F	12	2/24/53	?	Yes
32.	F	4	2/25/53	45	Yes
33.	F	5	2/25/53	45	Yes
34.	F	8	2/26/53	13-7	No
35.	F	24	2/28/53	?	Yes
36.	F	36	2/28/53	1C-11C-13C	No
37.	M	15	2/28/53	15	Yes
38.	F	51	2/28/53	?	No
39.	M	16	3/ 2/53	?	?
40.	M	1	3/ 2/53	?	Yes
41.	F	40	3/ 3/53	?	?
42.	M	20 mos.	3/ 4/53	?	No
43.	F	10	3/ 4/53	?	Yes
44.	F	30	3/ 7/53	?	?
45.	F	5	3/ 9/53	36	Yes
46.	F	35	3/10/53	44	No
47.	M	10	5/13/53	?	No

Table 2. IDAHO DIPHTHERIA CARRIERS 1953

Carrier	Sex	Age	Contact	Immunized
1C	M	9	1	No
2C	M	9	4-8	Yes
3C	M	12	4-8	Yes
4C	M	12	4-8	No
5C	F	10	6	No
6C	F	14	8	Yes
7C	F	13	8	Yes
8C	F	28	18	No
9C	M	54	22	No
10C	M	8	20	Yes
11C	F	10	20-1C	No
12C	M	8	20-1C	No
13C	M	41	11C-12C-36	No
14C	F	4	11C-12C-14C-36	Yes
15C	F	42	20	No
16C	F	3	6-7-20-5C	No
17C	M	9 mos.	16C	No
18C	F	12	37	No
19C	F	36	37	Yes
20C	F			?
21C	M	11	20	No
22C	M	53	38	No
23C	F	69		Yes
24C	M	7	13C-43-36-14C-45	Yes
25C	F	32	36	Yes
26C	F	42	?	*
27C	M	33	?	No
28C	F	2 1/2	?	Yes
29C	F	5 1/2	?	Yes
30C	M	25	?	?
31C	F	30	20	No
32C	F	44	20C	Yes
33C	M	12	10-5C-24	No
34C	F	?	?	?

* had diphtheria in 1940

Since the epidemic went unsuspected for several weeks, widespread exposure took place. As a result the main incidence of the disease took place during February and the epidemic continued through March 10 when the last case was reported.

Control Measures

Epidemiologic investigation indicated widespread infection in the community as indicated by an increasing incidence in cases confirmed by laboratory studies and by the number of carriers discovered by taking cultures on all known contacts of diagnosed cases.

School records indicated a low level of immu-

nizations in the area. In view of these facts, a mass immunization program was considered to be the best method for bringing the outbreak under control.

Needless to say, near panic developed in the area when an epidemic was reported. The local health department facilities were opened during the daylight hours for immunization. Doctors' offices in every instance were crowded with people waiting to be immunized. Volunteer workers were organized to handle the large crowds of people, keep records, and clean equipment. Nurses and physicians' teams held clinics in the schools, and in a matter of a few days a majority of the people had rceceived at least one immunizing injection.

Due to the length of time it took to control this epidemic, and to continuing publicity, most adults returned for the second shots and many for the third. All school children received boosters or the complete series. From the large number of adults and young people appearing for injections, and from the school records available, it was evident that no satisfactory immunization program had been carried on with the exception of one small community school. This school had an excellent pre-school immunization record and, although all of these children and their parents were in close contact with both carriers and cases of diphtheria, no cases developed within this group. Approximately 35,000 people in Twin Falls and surrounding counties were immunized.

Laboratory Studies

Epidemiologic data were obtained from each reported case. Throat and nasopharyngeal swabs were obtained from each patient, his family and intimate contacts. Swabs were planted on Loeffler's medium and incubated overnight. Smears were made for microscopic studies and suspicious (presumptive positive) cultures were transferred to blood tellurite medium. Colonies resembling *C. diphtheriae* were transferred to Loeffler's and incubated overnight. Pure cultures thus obtained, which were morphologically typical of *C. diphtheriae* (confirmed positives) were transferred to broth cultures and tested for virulence in chicks. Isolates were also forwarded to the communicable disease center laboratory in Chablee, Georgia, for typing. All positive cultures were found to be virulent and of the Gravi's type.

Comment

Despite the steady decline in the incidence of diphtheria in the United States during the past few decades, changes in incidence and pattern of the disease require changes in concepts, and pose problems in prevention.

In the United States, from a three-year average of 60.3 cases per 100,000 population for 1929-1931, the rate dropped to an average of 3.9 for the period of 1945-1951. In 1953 the rate was 1.5.

With diminished incidence, there occurs diminished spontaneous immunization. Lack of exposure to the disease requires reconsideration of the duration of immunity under circumstances where contact with natural infection does not occur. Thus, one might expect increasing susceptability with age, a rising age rate in cases and less transplacental immunity conferred to the newborn. With diminished incidence, diagnosis is impeded by a lowered level of suspicion on the part of the clinician. There likewise results a lowering of technical proficiency on the part of bacteriologists and technicians whose skills become rusty through disuse and decreased emphasis on technical training and knowledge.

With the absence of cases in a community, public concern is lessened and demand for immunization tends to drop.

Despite the marked decline, which relegated diphtheria to the position of a rare disease of minor importance, the threat of its recurrence in epidemic form should not be treated lightly.

2300 Central Avenue (Dr. Reinstein).

Dr. Reinstein is State Epidemiologist and Director of Preventive Medicine, Wyoming Department of Public Health. At the time of this investigation, he was Epidemic Intelligence Officer of Communicable Disease Center, U. S. Public Health Service and conducted this study at the request of Mr. L. J. Peterson, Idaho State Health Officer. Mr. W. W. Benson is Director of the Division of Vital Statistics, Idaho State Health Department. Epidemiologic studies and control activities were made possible through the cooperation of the Idaho State Department of Public Health, the Communicable Disease Center, Atlanta, Georgia, and the South Central District Health Department, Twin Falls, Idaho.

Preoperative Diagnosis of Meckel's Diverticulum

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Radiologic detection of Meckel's diverticulum, prior to surgical intervention, is a medical experience recorded 22 times in the literature.[1] Our case of presurgical diagnosis of this anomaly is added to those already reported and is, so far as we can determine, a unique event in medical annals of the Northwest.

Historical Background

Fabricus[2] described what is known as Meckel's diverticulum in 1598. Meckel, Professor of Anatomy and Physiology, University of Halle (1781-1833), was not the first to describe the diverticulum which bears his name, nor the first to suggest its origin, but was the first to carefully study the anomaly and write extensively on the topic, according to Sloan.[3]

Zenker, 1861, is credited with establishing relation between gastric mucosa in Meckel's diverticulum and clinical gastrointestinal tract hemorrhage.[4]

Incidence

Meckel's diverticulum is found in 2 per cent of the population (autopsy figures) and 20 per cent of these develop clinical signs and symptoms. The condition is several times more common in males than in females. Baker and Marshall report 93 Meckel's diverticulums in 86,000 intraabdominal operations at the Lahey Clinic or about 1 in 1,000.[4] These writers feel the condition should be sought more often at surgery and removed prophylactically. Age incidence quoted by Sloan is from 7 to 74.

Meckel's diverticulum is clinically most important of the several congenital malformations resulting from varying degrees of failure in normal obliteration of the omphalomesenteric duct. If typical, it should be on the antimesenteric border of the bowel, average approximately 3.5 cm. in length, be 80 to 85 cm. from ileocecal valve, with mucosa which is ileal or gastric in type. It should have its own blood supply and should contain all layers of bowel.

Symptoms and Signs

Symptoms and signs of Meckel's diverticulum are due to the complications relating to the extent of disturbed anatomy and physiology occurring in the diverticulum itself or in surrounding ileum, or both.

Rectal bleeding due to peptic ulceration is the leading clinical manifestation and was a sign in 6 of 19 clinically significant cases at Johns Hopkins Hospital during the period 1931 to 1950. Bleeding can be severe, is often intermittent and, if gross in type, may produce dark red or tarry stool. Five of Sloan's 6 bleeding cases showed peptic ulceration of gastric type mucosa.

Obstruction of the ileum, acute or subacute type with or without volvulus, is a leading symptom. It was manifest 6 times in Sloan's 19 cases. Frequently obstruction was produced when a loop of small bowel herniated through the ring created by adhesion of tip of the diverticulum to adjacent structures.

Intussusception occurred in 4 of Sloan's 19 cases.

Inflammatory change with or without perforation was found in 3 of Sloan's 19 cases. It may simulate appendicitis.

Foreign bodies, particularly fish bones, may cause perforation of a Meckel's diverticulum.

Malignant degeneration has been found.[5,6]

Radiologic Signs

Pfahler is generally credited with the first successful radiologic demonstration of Meckel's diverticulum.[7]

Contrast filling of the diverticulum with barium, usually by small bowel study, has been the most common method of successful radiologic demonstration.

Lerner reports successful detection of a Meckel's diverticulum by the demonstration of a gas-filled pouch.[8]

Stone formation, with folded-ribbon shaped concretion within the diverticulum, was demonstrated in Bischoff and Stampfli's case.[9]

Barium enema as an emergency procedure for demonstration of suspected intussusception was used in 2 of Sloan's 4 cases of intussusception.

Alvary states the anomaly most often gives angulation of the ileum at its point of attachment.[10]

The barium-filled pouch usually is located in lower abdomen to the right of the midline. Peristalsis, due to the presence of all bowel layers, has been observed with careful fluoroscopy and should be sought for as a sign of a true Meckel's diverticulum. Difficulties in radiologic diagnosis are due to wide opening, lumen comparable to adjacent barium-filled small bowel, and young age group of many patients.

CASE REPORT

A 38 year old female was first hospitalized Dec. 14, 1954, because of dark chocolate brown stools, weakness and general malaise for six to seven weeks. The patient recalled that she had had tarry stools for three days in 1948. She also gave history of six weeks period of "colitis" at age of 15 with severe abdominal cramps. She had at times noted epigastric pain four hours following meals. It sometimes awakened her from sleep. She obtained relief from carbonated beverages. Examination was negative except hemoglobin of 35 per cent. She was given 3 pints of blood.

Occult blood test on stools varied between one and two plus.



Fig. 1. Small bowel four hours film showing huge barium-filled Meckel's diverticulum in left abdomen.



Fig. 2. Mobilized small bowel segment and diverticulum.



Fig. 3. Opening of diverticulum as seen in resected specimen.

Barium enema and proctoscopy May 1954 had been negative and were negative on repeat during hospital stay. Upper gastrointestinal series was negative.

She was rehospitalized Aug. 30, 1955, with chief complaint of anemia. After her first hospitalization, hemo-

globin had returned to 80 per cent. There had been no recurrence of bleeding but in the month prior to admission, hemoglobin had gone down to 50 per cent.

Small bowel study Sept. 2, 1955, showed a large barium-filled pouch in the lower abdomen (Fig. 1).

Bowel content obtained at about level of suspected Meckel's diverticulum through Miller-Abbott tube showed strong chemical test for blood.

Operation, with resection of large Meckel's diverticulum, was carried out Sept. 4, 1955 (Fig. 2). The diverticulum measured 10x8 cm., was indurated, and was located 20 cm. from the ileocecal valve. Pathologic diagnosis was a large Meckel's diverticulum with gastric mucosa and chronic active peptic ulceration at one ulcer margin (Fig. 3).

Discussion

Closer teamwork between radiologist and clinician at time of first hospitalization could have established the diagnosis nine months earlier. In 6 of Sloan's 19 cases the diagnosis was suspected on history and physical examination alone.

Since 2 per cent of the population have Meckel's diverticulum and about 25 per cent of these can expect a serious complication, it is important that we develop some way of increasing the diagnostic yield. First, there should be a high clinical index of suspicion. Next, we should know more accurately the diagnostic batting average where there has been clinical suspicion and the radiologist has carried out adequate small bowel examination, including careful fluoroscopy.

The available literature does not accurately reflect how often the above conditions have been fulfilled in rectal bleeding problems otherwise unaccounted for. Neither do we know how frequently Meckel's diverticulum has been considered in differential diagnosis of acute abdomen when there are symptoms indicative of obstruction or perforation. This information would be particularly interesting if elicited from the group having had no prior abdominal surgery.

One of us (AFH) has long been an advocate of a gastrointestinal registry as a cooperative project participated in by general practitioners, surgeons, radiologists and pathologists. Such registry, with its pooled statistical experience, would reveal clinical and radiologic accuracy in diagnosis of the lesion, surgical competence in searching for and removing it, and areas where improvement is needed. Thus the greatest possible efficiency could be employed to establish knowledge of the clinical aspects of Meckel's diverticulum.

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TRAUMA CLINIC

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Open Fractures

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The great danger associated with the management of open fractures is the occurrence of infection. Regardless of how accurately or skillfully the surgeon's management of an open fracture is accomplished, it is of no avail if sepsis occurs. The following outline is presented as a guide to reduce the septic complication to a minimum.

Definition

An open (compound) fracture has the fragments in commnication with the skin. These are to be distinguished from simple fracture with superficial laceration.

Etiology

(1) Perforating . . . (Usually less contaminated). The compounding is produced by the fragments rupturing through the skin from within, outward.

(2) Penetrating . . . (Usually more contaminated). The compounding is produced by external direct force (missile, blunt or sharp objects), acting from without, inward.

Peculiarities

Open fractures are of the same types as simple fractures.

Premise of Management

The open fracture is converted to a closed (simple) fracture at as early a time as the bacterial contamination and the wound resistance will allow.

Management of Compounding

(1) Care of Patient . . . (a) splint of fracture for transportation, (b) correction of shock, blood loss and visceral damage.

(2) Preparation of Wound . . . (a) general anaesthesia, (b) shave compound area widely, (c) surgical scrubbing of wound area with soap or detergent, the time varying by the amount of contamination (10 to 30 minutes).

(3) Debridement . . . (a) removal of all avascular and grossly contaminated tissue, (b) irrigation with saline.

Fracture Management

This is determined by the bacterial contamination and the bacteria medium remaining after debridement. It must embody plaster immobilization, antibiotics, and careful general management.

(1) Primary closure with operative fracture management. Rarely does a wound qualify for this management but a few are seen in civilian practice.

(2) Primary closure. This wound is not as healthy as No. 1 and secondary fracture management may be required after the compounding is healed.

(3) Closure with drainage for three to four days. This plan is used in less healthy wounds than No. 2.

(4) Secondary closure after three to ten days. This plan is reserved for wounds that are potentially infected and which require accumulation of local resistance.

(5) Delayed closure with skin substitution. This may be done in markedly contaminated or infected wounds usually with loss of soft tissue.

Summary

An open (compound) fracture should be converted to a simple fracture at as early a time as the bacterial count and the medium of the wound will allow. After this is accomplished, the open fracture can then be managed by the standard principles of fracture management employed in all fractures. The greatest danger in open fractures is the occurrence of sepsis and this must be avoided. The plan as outlined above is intended to avoid this complication. Since open fractures are of the same types as simple fractures, individual management will vary remarkably from simple cast immobilization to complex methods of fixation.

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G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

---

1. Axelrod, A. E.; Beaton, J. R.; Cannon, P. R., and others: Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Incorporated, (March) 1954, p. 100.

2. Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

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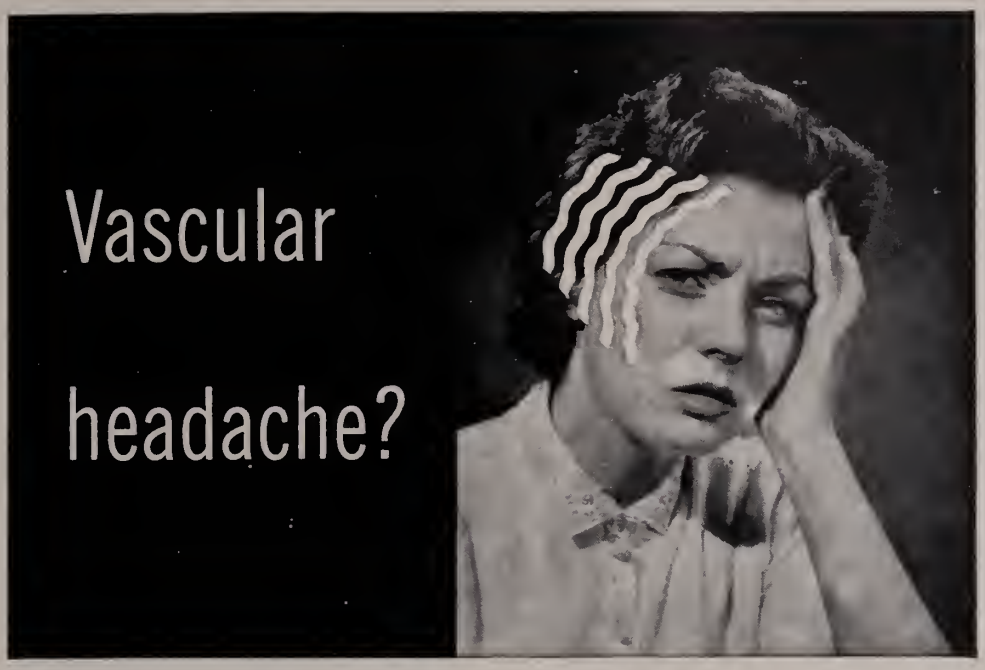
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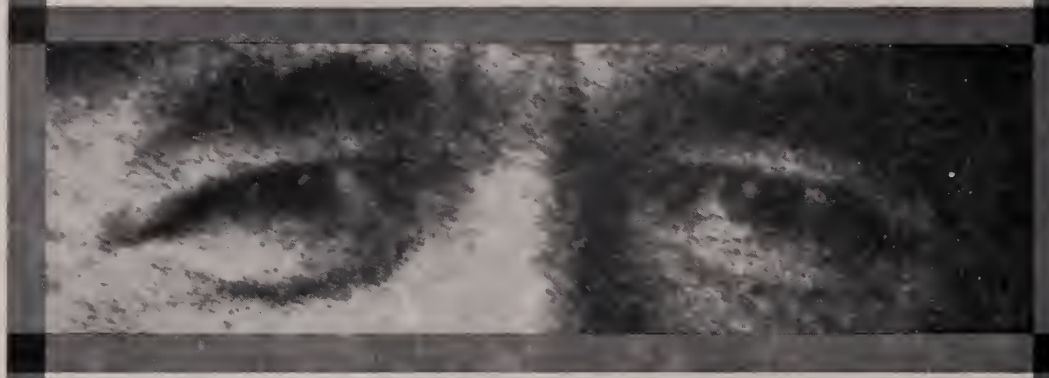
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Source—Hyman, M.: Some Aspects of Psychiatry in General Practice, GP *16*:83 (Oct.) 1957.

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*Bauer, H. G.; Seegers, W.; Krawzoff, M., and McGavack, T. H.: A Clinical Evaluation of Ectylurea (NOSTYN®), in press.

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Oregon

OREGON STATE MEDICAL SOCIETY
1115 S. W. Taylor Street
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ANNUAL MEETING
September 3-5, 1958
Portland

President, Vern W. Miller, M.D., Salem
Secretary-Treasurer, Max H. Parrott, M.D., Portland
Executive Secretary, Mr. Roscoe Miller, Portland

Formation of "Key Man" Program Receives State Council Approval

The year 1958 may be termed an "off year" as far as the State Legislature is concerned but there is every indication that it will be a busy 12 months for the State Society's Committee on Public Policy.

Arch W. Diack, chairman, reported to the Council in January on a lengthy committee session that ranged in subject matter from the controversial Forand Bill now before Congress which would further expand Social Security benefits, to the organization of a group of key legislative physicians throughout Oregon.

The Forand Bill providing surgical and hospital benefits for Social Security recipients was unanimously rejected as the Society reaffirmed its position in opposition to Federal medical care programs.

In a positive move, the Committee was authorized to explore the possibility of seeking State legislation which would require medical insurance underwriters to establish a "preferred risk pool" to provide health insurance protection for persons over 65. The Committee also indicated it will study other proposals for medical care for the older age group.

Chairman Diack said the Committee unanimously agreed that, "opposition to the Forand Bill is not enough. We must offer positive proof that medicine can and will find the means to care for our aging population," he said.

The "key man" program is patterned after several other State Medical Society organizations. Under the plan, President Vern W. Miller will appoint a "key man" in each county to serve for two years. Physicians selected will be asked to keep themselves informed on state and federal legislation affecting the practice of medicine or the public health. "Key men" will receive regular mailings of literature concerning such legislation and other public policy matters that might be considered by the Society.

Each year the Society plans to sponsor a state conference for "key men" during which detailed information will be presented on current activities of the Committee on Public Policy.

"Key men" will be expected to become acquainted with their local legislators and to keep their colleagues and other persons in the community informed on the position of the State Medical Society.

On recommendition of the Public Policy Committee the Council also approved the rules and regulations established by the Oregon State Board of Medical Examiners for the licensure of graduates of foreign medical schools, agreed to assign a committee to cooperate with the Board of Health and the Board of Medical Examiners in developing a program to elevate standards of medical care in hospitals, and invited the Legislative Committee of the Woman's Auxiliary to attend the conference for "key men."

Scientific Programs Being Planned For '58 and '59 Annual Sessions

Plans are already well under way for the 1958 and 1959 Annual Sessions of the Oregon State Medical Society.

Max H. Parrott, Secretary-Treasurer of the State Society who also serves as chairman of the Committee on Annual Session, reported to the Council in January that the scientific program is now being considered for the '58 Session which will be held in Portland, September 3-4-5, starting on the Wednesday immediately following Labor Day. The early date was selected to avoid conflict with the hunting season.

In 1959 the Session moves out of Portland for the first time in eight years and will be held in Medford with members of Jackson County Medical Society serving as official hosts.

Dr. Parrott is making arrangements to establish a liaison group from the Jackson County Medical Society to his Committee for the purpose of coordinating the Session's scientific, business and recreational programs. Tentative plans for the Medford meeting include use of the city's expansive new armory for scientific lectures and technical exhibits. The House of Delegates is scheduled to convene at the modern Rouge Valley Country Club just a few minutes drive from the armory.

Four Physicians Given Life Memberships

Four long time and well-known physicians have been added to the roster of Life Members of the Oregon State Medical Society.

Approved as Life Members at the January meeting of the Council were H. R. Lucas, George Earle Henton and Harry B. Moore, Portland, and E. J. Nitschke of Prairie City.

All physicians who have been active members in good standing of the Society for 30 years and who have reached the age of 65 are eligible to apply for Life Membership.

Eligible members desiring Life status should apply in writing to the Secretary-Treasurer, Max H. Parrott, at the headquarters office.

Members Receive "Statement of Minimum Employment Practices for Office Nurses"

Oregon physicians will soon receive from their State Medical Society a copy of a new "Statement of Minimum Employment Practices for Office Nurses" as adopted and published in October, 1957, by the Oregon Nurses Association.

Although the "Statement" carries neither the endorsement nor disapproval of the Society, the State Council approved a recommendation of its Liaison Committee to the Oregon Nurses Association that the pamphlet be forwarded to all physicians for informational purposes only.

The "Statement" suggests general employment conditions including wages, hours, holidays and paid vacations.

Melvin W. Breese, Chairman of the Liaison Committee, reported that the "Statement" represents the office nurses' opinion of what constitutes proper minimum employment conditions. He emphasized the Committee is interested in helping the nurses improve their personal and professional status.

A second recommendation adopted by the Council authorized the Committee to launch a program aimed at stimulating more physician participation in formal postgraduate training of nurses in all classifications.

Presidents of medical staffs, superintendents of nurses and presidents of component medical societies will be urged to establish formal training programs in local hospitals. Lectures and demonstrations by physicians would be open to nurses employed in hospitals, industry and medical offices as well as qualified nurses not currently employed.

The following report of the Liaison Committee of its actions at a meeting on December 13, 1957, was adopted by the Council at the January session:

1. *The "Statement of Minimum Employment Practices for Office Nurses in Oregon" adopted by the Oregon Nurses Association in October 1957.*

The Committee recalled that the establishment of such standards had been considered at three joint meetings with representatives of the Association's Office Nurse Section.

It was also recalled that the Committee had presented to the Council on October 6, 1956, a recommendation that it consider approving the "Standards" as revised by the Committee but that the Council, however, referred the matter back to the Committee for further study.

The Committee then reviewed the "Standards" as adopted and published by Oregon Nurses Association and voted to recommend to the Council that the "Standards" be mailed to each member of the Society with a letter of transmittal which would simply state that the Committee feels office nurses should be adequately compensated and that the "Standards" represent the nurses' opinion regarding what constitutes proper minimum employment conditions for office nurses. The Committee wishes to emphasize its desire to help the nurses to improve their personal and professional status.

The Committee, also, voted to suggest that the Oregon Nurses Association mail the "Standards" to the office nurses at the same time the Society mails them to its members.

2. *Postgraduate Education for Nurses.*

The Committee was strongly of the opinion that physicians should assist nurses in advancing their professional qualifications by offering postgraduate education opportunities wherever nurses would like postgraduate training.

It, therefore, voted to recommend that postgraduate education courses be offered by the medical staffs of local hospitals in conjunction with nursing departments in the hospitals.

The Committee suggests that letters recommending the inauguration of the program be sent to the presidents of the medical staffs and the superintendents of nurses at each hospital in the State and to the presidents of each component society. This is an effort to show the nurses of Oregon that we willingly offer our services for postgraduate training for nurses. Inactive nurses should be invited also wherever possible.

3. *Nursing Schools in Oregon.*

The Committee had brought to its attention that all schools of nursing outside of Portland, except the school at the Sacred Heart Hospital in Eugene, had been discontinued and that many nurses training applicants had been denied admission to Oregon schools of nursing in recent years. In view of the shortage of nurses, the Committee considered this situation to be unfortunate.

The Oregon Nurses Association has informed the Committee that schools in smaller hospitals had been discontinued because they cannot offer a sufficiently broad nursing experience, cannot obtain or maintain adequate faculty, and find it financially difficult to support these smaller schools. The Committee is continuing its study of this problem.

4. *Survey of Nursing Needs in Oregon.*

A survey of "The Needs for Nursing Services in Oregon" was conducted in 1948 by a combined committee of professional and lay people interested in patient care, and plans are being considered to repeat this survey to determine what progress has been made and what the future needs may be.

The Committee recommends recognition of this proposed re-survey and that active financial support be considered.

Respectfully submitted,
Melvin W. Breese, M.D., Chairman
Hugh D. Colver, M.D.
Bruce L. Titus, M.D.
William R. Endicott, Jr.
Warren M. Weiseth
Norman L. Dodds

UOMS Receives Two Research Grants

Two $15,000 grants were awarded to the University of Oregon Medical School during December. One was given for research in diseases of the eye and the other to support cancer research.

The $15,000 given to the University by the Knights Templar Eye Foundation, Inc., is being used to support research programs underway in the John E. Weeks Memorial Laboratory of Ophthalmology. Two University investigators were the recipients of the gift from the Damon Runyon Memorial Fund which was presented to the medical school by U.S. Senator and Mrs. Richard L. Neuberger of Oregon, representing the fund. The Senator was asked to make the award because of his sponsorship of cancer research legislation in Congress.

newest antibiotic therapy for the eye
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SUSPENSION 1%

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...Just drop on eye...spreads in a wink! Provides unsurpassed antibiotic efficacy in a wide range of common eye infections...dependable prophylaxis following removal of foreign bodies and treatment of minor eye injuries.

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Three Physicians Nominated For Appointment to Medical Board

Governor Robert D. Holmes has received the nomination of three physicians from the Oregon State Medical Society for consideration in making a five-year appointment to the State Board of Examiners.

The State Council at its January meeting waived policy on request of the House of Delegates and nominated Wilmot C. Foster, the incumbent who will complete his second term on the Board on February 28.

Also nominated were A. O. Pitman, Hillsboro, and Melvin W. Breese, Portland. Dr. Pitman, a past president of the Society, is serving as the Society's senior delegate to the American Medical Association. Dr. Breese is chairman of the Society's Liaison Committee to the Oregon State Nurses Association.

Society policy prohibits the nomination of any physician who has served two full consecutive terms on the Board. However, last fall the House of Delegates voted to relax policy in Dr. Foster's instance so that in event he is re-appointed to the Board, Dr. Foster will be able to retain his position as a member of the Executive Committee of the National Federation of State Medical Boards. Dr. Foster is the only physician residing in a west coast State now serving on the Board's Executive Committee. All members of the National Executive Committee must be members of their own State Board.

The new term on the State Board of Medical Examiners will expire on February 28, 1963.

Dates Set for Mid-Year Meeting

Adoption of the budget for 1958 and approval of dates for the mid-year meeting of the House of Delegates were among actions taken by the Council of the Oregon State Medical Society at its January meeting.

Dates for the mid-year meeting to be held in Portland were approved for Saturday and Sunday, April 19-20, immediately following annual meeting of the University of Oregon Medical School Alumni Association. Sessions will be held at the Columbia Athletic Club.

The budget as adopted will be mailed to all members of the Council.

The Council also heard a special report from Raymond M. McKeown of Coos Bay, who is now serving as a Trustee of the American Medical Association. Dr. McKeown reported on highlights of the Trustee meetings during the recent clinical session in Philadelphia.

Klamath County Medical Association

William Holford, Jr., was elected and installed as president of the Klamath County Medical Association at the group's December meeting. Other officers chosen to serve during 1958 were: John D. Merryman, vice-president; Robert Payne, secretary; Everett E. Howard, treasurer; and Fletcher Conn and Don Rice, delegates. All practice in Klamath Falls.

Douglas County Medical Society

Robert R. Mooers has been elected to the top post of the Douglas County Medical Society for 1958. Others named to serve with Dr. Mooers during the current year are: George Lenci, vice-president; William D. Holst, secretary-treasurer; and Harvey W. Kring, councilor. All are Roseburg physicians.

UOMS Offers Postgraduate Courses

CLINICAL PATHOLOGY FOR THE GENERAL PRACTITIONER, *a continuation course* ..... February 17-April 7
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PRACTICAL OFFICE GYNECOLOGY ..... March 31-April 2
GENERAL SURGERY ..... April 7-11
DERMATOLOGY ..... April 14-15
UOMS ALUMNI ASSOCIATION MEETINGS—
Sommer Memorial Lectures ..... April 16-18
RADIOISOTOPE TECHNIQUE WORKSHOP ..... April 29-May 1
ENDOCRINOLOGY ..... tentatively, May 12-14
RADIOLOGY ..... May 21-23

Additional information may be obtained from: Office of Postgraduate Instruction, University of Oregon Medical School, 3181 S.W. Sam Jackson Park Road, Portland 1.

UOMS Sponsors Monthly Research Forums

A monthly series of research forums sponsored by the University of Oregon Medical School were initiated during the past year. The programs enable professional people in the Portland area to learn about advances in various fields of the medical sciences. Three papers are presented at each meeting which is preceded by an optional dinner. Inquiries as to date and time of meetings should be addressed to: Division of Endocrinology, University of Oregon Medical School, Portland 1.

Sommer Advisory Committee Post Filled

Arthur L. Rogers of Portland has been appointed to the advisory committee for the Sommer memorial lectures. Dr. Rogers succeeds the late John Fitzgibbon of Portland.

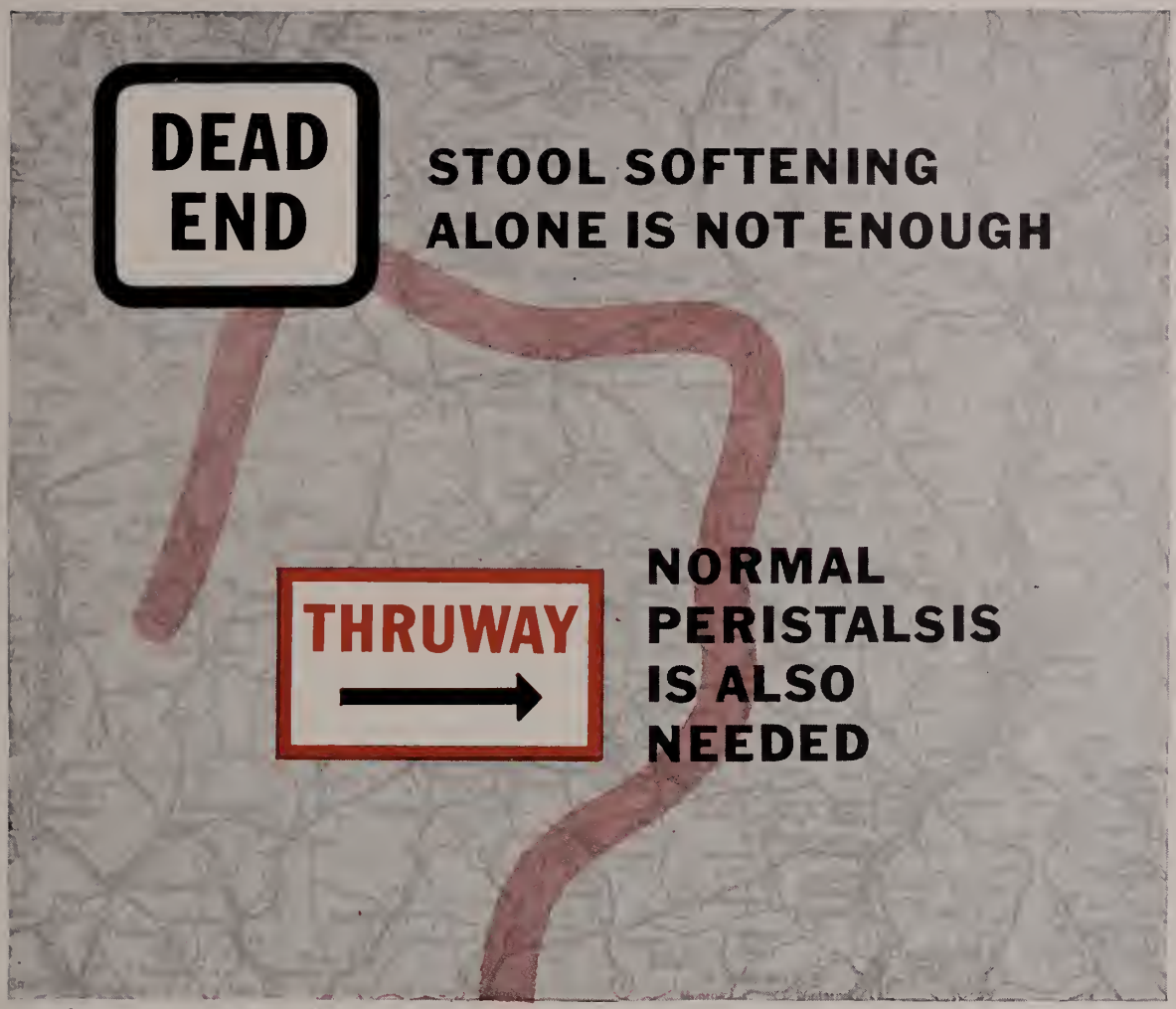
The Sommer lectures are held each spring and fall, in conjunction with the University of Oregon Medical School Alumni meeting and the annual convention of the Oregon State Medical Society. Internationally known specialists from all parts of the world have appeared on Sommer lecture programs, which are made possible through a trust fund established by the late Ernst Sommer.

Southwestern Oregon Medical Society

Paul Parker of North Bend has been elected to succeed Donald Courtney, Reedsport, as president of the Southwestern Oregon Medical Society. Other officers elected during the December meeting were: William P. Kean, Coos Bay, vice-president; Douglass Johnson, Coos Bay, secretary-treasurer; Dr. Courtney, delegate; Ellsworth Lucas, Bandon, and Elmo Peterson, North Bend, members of the Society's executive council; and L. B. Gould, Coquille, local advisor to the board of the Oregon Physicians Society.

Obituary

Dr. Walter C. Miller, 61, died November 29 at his home in Portland. Dr. Miller received his medical degree in 1920 from the University of Nebraska College of Medicine. He served his internship at St. Joseph Hospital in Denver, Colo., and practiced in Alamosa, Colo., and Arapahoe, Neb., before locating in Portland. He had practiced in Portland for 19 years and was a staff member of Emanuel Hospital.



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the cough

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Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane Secretary, F. A. Tucker, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

High Court Decision Validates Disciplinary Act

Test of the Medical Disciplinary Act of 1955 resulted in firm support of powers of the Medical Disciplinary Board by the Supreme Court of the State of Washington. Following is full copy of the decision handed down January 2, 1958:

IN THE SUPREME COURT OF THE STATE OF WASHINGTON

In the Matter of the Revocation of the License to Practice Medicine and Surgery of JEAN D. KINDSCHI.	Filed January 2, 1958 No. 34137 Department One

Dr. Kindschi's license to practice medicine and surgery in the state of Washington was suspended for eight months by the medical disciplinary board for alleged unprofessional conduct as defined in RCW 18.72.030(1). He appealed to the superior court for Thurston County, which affirmed the suspension. The matter is now before us for review.

The medical disciplinary board was established by the state legislature in 1955. It was given broad powers to discipline members of the medical profession for unprofessional conduct. It may reprimand a doctor, or may suspend or revoke his license. Unprofessional conduct is defined in RCW 18.72.030. The portions thereof pertinent to this appeal read as follows:

> . . . The term 'unprofessional conduct' . . . shall mean . . .
> (1) Conviction in any court of any offense involving moral turpitude, in which case the record of such conviction shall be conclusive evidence.

On May 4, 1956, Dr. Kindschi entered a plea of guilty in the United States District Court for Eastern Washington to a charge of willfully attempting to evade a portion of his proper income taxes for the calendar year, 1949, *by filing a false and fraudulent return.*

The charge involved violation of 145(b) of the internal revenue code of 1939, as amended, which reads as follows (p. 221):

> (b) . . . Any person . . . who willfully attempts in any manner to evade or defeat any tax imposed by this chapter or the payment thereof, shall, in addition to other penalties provided by law, be guilty of a felony . . .

On August 17, 1956, the medical disciplinary board issued notice to Dr. Kindschi that a hearing would be held on September 22, 1956, in Seattle to determine whether his license to practice medicine should be revoked. In its specification of charges the board set out the above-mentioned conviction of tax evasion and charged that the offense involved moral turpitude, and constituted unprofessional conduct within the meaning of the medical disciplinary act.

Dr. Kindschi made timely written reply to the specification. He admitted pleading guilty to the Federal offense, but denied that it involved moral turpitude or constituted unprofessional conduct.

When the hearing committee of the medical disciplinary board convened, the chairman announced (a) that it was the opinion of the attorney general of the state of Washington that the crime for which Dr. Kindschi had been convicted involved moral turpitude; and (b) that the opinion of the attorney general fully settled the question insofar as the board was concerned. The chairman specifically foreclosed any hearing on the question, and counsel have stipulated that no evidence was taken at the hearing concerning the facts and circumstances involved in the violation by Dr. Kindschi of the internal revenue act.

It is somewhat difficult to classify a medical disciplinary proceeding. It is characterized as civil, not criminal, in nature; yet it is quasi criminal in that it is for the protection of the public, and is brought because of alleged misconduct of the doctor involved. Its consequence is unavoidably punitive, despite the fact that it is not designed entirely for that purpose. It is not strictly adversary in nature. It is essentially a *special*, somewhat unique, statutory proceeding, in which the medical profession (under state authorization through the medical disciplinary board) inquires into the conduct of a member of the profession and determines whether disciplinary action is to be taken against him in order to maintain sound professional standards of conduct for the purpose of protecting (a) the public, and (b) the standing of the medical profession in the eyes of the public. *Cf. In Re Little*, 40 Wn. (2nd) 421, 244 P. (2nd) 255.

It may be argued that, since it is not strictly a criminal proceeding, the principles of due process and equal protection (guaranteed by the fourteenth amendment) do not apply. On that question, however, the United States Supreme Court is the final arbiter, and in a recent opinion (*Schware v. Board of Bar Examiners of New Mexico* (1957), 353 U. S. 232, 1 L. Ed. (2nd) 796, 77 S. Ct. 752), that court stated:

> A State cannot exclude a person from the practice of law or from any other occupation in a manner or for reasons that contravene the Due Process or Equal Protection Clause of the Fourteenth Amendment . . .

(Continued on page 222)

An article on the Medical Disciplinary Board and the way it functions will be published next month.

(Continued from page 221)

(citing cases). A State can require high standards of qualification, such as good moral character or proficiency in its law, before it admits an applicant to the bar, but any qualification must have a *rational connection with the applicant's fitness or capacity to practice law* . . . (Emphasis supplied.)

In the *Schware* case, *supra,* the court was dealing with *admission* to practice *law;* but it follows, logically, that the due process clause and the equal protection clause of the fourteenth amendment apply with much force to proceedings in which a practitioner's license may be *revoked or suspended.* The following footnote in the *Schware* opinion, *supra,* emphasizes this view:

> We need not enter into a discussion whether the practice of law is a 'right' or 'privilege.' Regardless of how the State's grant of permission to engage in this occupation is characterized, it is sufficient to say that a person cannot be prevented from practicing except for valid reasons. Certainly the practice of law is not a matter of the State's grace. *Ex Parte Garland,* 4 Wall. 333,379.

The United States Supreme Court has not required that due process and equal protection standards relative to criminal trials are *necessarily entirely* applicable to disciplinary proceedings relative to state granted licenses to practice professionally.

RCW 18.72.030 (1) prescribes as unprofessional conduct "conviction in any court of any offense involving moral turpitude." Tax fraud involves moral turpitude. *Jordan v. DeGeorge, infra; In Re Seijas, 151* Wash. Dec. 350, ____ P. (2d)____. In our judgment, a willful and intentional attempt to avoid payment of all or a part of one's income tax with intent to defraud the government involves moral turpitude. Such fraud is unprofessional conduct as that term is defined in the medical disciplinary act.

The daily practice of medicine concerns life and death consequences to members of the public. They have an understandable interest in the maintenance of sound standards of conduct by medical practitioners. The public has a right to expect the highest degree of trustworthiness of the members of the medical profession. We believe there is a rational connection between income tax fraud and one's fitness of character or trustworthiness to practice medicine, so that the legislature can properly make fraudulent conduct in such instances a ground for revoking or suspending the license of a doctor.

Dr. Kindschi was charged with violating a Federal criminal statute. We look, therefore, to the decisions of the Federal courts to discern the elements necessarily involved in the crime to which he pleaded guilty.

There is some conflict and some doubt under the decisions of the Federal courts as to whether fraud (moral turpitude) inheres in every violation of 145(b). See concurring opinion in *In Re Seijas, supra.* But there is no doubt under the Federal cases that fraud must be proved when the method of defeating or evading tax alleged in an indictment is by the filing of a false and fraudulent income tax return. *Berra v. United States* (1955), 351 U. S. 131, 100 L. Ed. 1013, 76 S. Ct. 685; *Achilli v. United States* (1957), 353 U. S. 373, 1 L. Ed. (2d) 918, 77 S. Ct. 995; *United States v. Rosenblum* (1949, CA 7th), 176 F. (2d) 321; *United States v. Raub* (1949, CA 7th), 177 F. (2d) 312; *Norwitt v. United States* (1952, CA 9th), 195 F. (2d) 127.

The method of tax evasion charged in the indictment of Dr. Kindschi was that of filing false and fraudulent returns. He pleaded guilty to that charge. We hold that the issue of fraud (moral turpitude) was determined conclusively by his plea of guilty to the crime as charged. He has no right to a new hearing before the medical disciplinary board as to the presence or absence of moral turpitude in his violation of 145(b). The summary proceedings by the medical disciplinary board were appropriate in the instant case.

One further point merits discussion. Appellant has challenged the moral turpitude standard as too vague in cases such as this, where different opinions may exist as to the presence or absence of moral tupitude in the crime committed. In *Jordan v. DeGeorge* (1951), 341 U.S. 223, 95 L. Ed. 886, 71 S. Ct. 703, the United States Supreme Court stated:

> We have several times held that difficulty in determining whether certain marginal offenses are within the meaning of the language under attack as vague does not automatically render a statute unconstitutional for indefiniteness . . . Impossible standards or specificity are not required . . . (Citing cases). The test is whether the language conveys sufficiently definite warning as to the prescribed conduct when measured by common understanding and practices . . . (Citing cases).
>
> We conclude that this test has been satisfied here. Whatever else the phrase 'crime involving moral turpitude' may mean in peripheral cases, the decided cases make it plain that crimes in which fraud was an ingredient have always been regarded as involving moral turpitude. We have recently stated that doubt as to the adequacy of a standard in less obvious cases does not render that standard unconstitutional for vagueness . . .

We think the foregoing quotation disposes of appellant's void-for-vagueness contention.

This court has the responsibility for disciplining its members of the legal profession. In the case of *In Re Seijas, supra,* we disbarred a lawyer for Federal income tax fraud. In contrast, in the instant case, the medical disciplinary board suspended a doctor from the practice of medicine for eight months. In terms of the protection of the public through disciplinary proceedings in matters of professional conduct, we can see no difference in income tax fraud—whether it is perpetrated by a lawyer or a doctor. We have no authority over the disciplining of members of the medical profession for unprofessional conduct. If the disciplining of the doctor by the medical disciplinary board in the instant case seems mild, the responsibility for this must be assumed by the medical disciplinary board. The legislature has vested authority and complete responsibility in the medical disciplinary board in such matters.

The judgment of the trial court is affirmed.

WE CONCUR:
Hill, C. J.
Mallery, J.
Finley, J.
Rosellini, J.
Ott, J.



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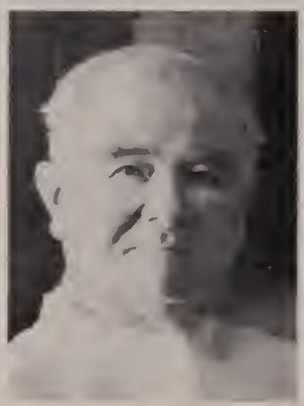
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S. Maimon Samuels Donates Gift to UW For Heart and Cancer Research Lab

Dr. and Mrs. S. Maimon Samuels have donated a gift of $100,000 to the University of Washington for construction of a heart and cancer research laboratory. In accepting the gift, the University's Board of Regents presented a certificate of appreciation to the couple.



S. Maimon Samuels, M.D.

Dr. Samuels, a Seattle physician since 1909, has stated that he plans to increase his contribution to about $250,000 in the near future.

The new research laboratory will be named the Dr. S. Maimon Samuels Institute for Heart and Cancer Research and will be a part of the University's Division of Health Sciences.

This present gift is just one of several made by Dr. and Mrs. Samuels to medical projects in Seattle. The property on which the King County Central Blood Bank is constructed was donated by the couple in 1944. In 1950 and 1952, they gave $12,000 to the University for production of a film on congenital malformations of the heart. Produced by Robert Rushmer of the University's medical school faculty, the motion picture has attained international prominence.

Grant Given in Medical Teaching Field

A $200,000 grant from the National Institutes of Health for experiment with new methods of attracting young people to become medical teachers and researchers has been awarded to the University of Washington School of Medicine. The University of Washington was one of six medical schools in the nation selected to receive such a grant.

Premedical students received research fellowships last summer under the new grant, which is to be used over a five-year period. Other projects under consideration are a conference for premedical advisors in Pacific Northwest colleges and universities, and a plan which would enable medical students who are interested in teaching to drop out of the regular curriculum for a quarter or more to gain experience as laboratory instructors.

Clark County Medical Society

Regular monthly meeting of Clark County Medical Society was held at the Royal Oaks Country Club on Tuesday evening, January 7. This meeting was a joint dinner meeting with the Woman's Auxiliary.

Following dinner and social hour, the group heard Charles T. Duncan, Dean of the School of Journalism at the University of Oregon, talk on Public Relations in Medicine.

Mr. Ray Bachman, Editor of the *Vancouver Columbian*, and Mrs. Bachman, and Mr. Kenneth Rystrom, a reporter on the *Columbian*, were other invited guests.



PRESIDENTIAL VISITATION—President Milo T. Harris of Washington State Medical Association (center) was guest speaker at a dinner meeting of doctors and lawyers in Okanogan County December 14. Shown with him are J. E. Fischnaller of Omak (left), president of Okanogan County Medical Society, and Mr. Charles A. Johnson of Okanogan, president of the Okanogan County Bar Association. Dr. Harris spoke following a showing of the film, "The Doctor Defendant," and led a discussion of medico-legal problems.

Ophthalmologists and Otolaryngologists Meet

Annual President's Meeting of Puget Sound Academy of Ophthalmology and Otolaryngology was held January 11 at the Rainier Club in Seattle. Lester T. Jones, Clinical Professor of Otolaryngology at the University of Oregon Medical School, was guest speaker. He presented two lectures: Congenital Anomalies of the Lacrimal Apparatus and Their Treatment, and Surgery for Complicated Conditions of the Lacrimal Apparatus.

At the close of the meeting, retiring president DeMar Anderson of Seattle presented the president's gavel to Edison G. Dorland, Seattle, president for 1958. New officers elected at the meeting were: Willard Goff, Seattle, president-elect; James L. Hargiss, Seattle, secretary-treasurer, and George Drumheller, Everett, trustee.

Five new members received certificates of fellowship in the Academy.

UW Receives Grants from DuPont Co.

University of Washington has been selected as one of 135 universities and colleges to participate in grants given by the E. I. DuPont DeNemours and Co. to aid education. The DuPont program of grants for the next academic year totals nearly $1,150,000.

The two awards made to the University are a grant of $10,000 for fundamental research in chemistry during 1958-59 and a postgraduate teaching assistantship in chemistry. The assistantship grant provides $2,400 for the year for the appointee with an additional allowance of $600 if he has children, plus an award of $500 to the University, and payment of tuition and fees.

Snohomish County Medical Society

Kenneth Barnes of Marysville was elected president of Snohomish County Medical Society during the group's January meeting. Named to serve with Dr. Barnes for the current year were J. William Ebert, Jr., vice-president, and James Otto, secretary-treasurer, both of Everett.

During the joint meeting with Everett Safety Council, members heard a discussion of the medical-legal aspects of heart diseases in industry. Sam Aronson and Donal Sparkman of Seattle were guest speakers.

Herbert Moseley To Be Speaker At Seattle Surgeons Annual Meeting

Those attending the Annual Dinner and Clinics of the Seattle Surgical Society March 21 and 22 at the Olympic Hotel will hear a wide variety of papers on surgery of acute trauma and two formal lectures by guest speaker Herbert F. Moseley, Assistant Professor of Surgery at McGill University Faculty of Medicine. The Society extends an open invitation to all members of the medical profession to attend the sessions.



HERBERT F. MOSELEY, M.D.

Well-known as an author as well as a teacher, Dr. Moseley has written textbooks on surgery and orthopedics, and also numerous articles. His most recent volume is entitled The Forequarter Amputation and was published in 1957 by the Livingstone Co., Edinburgh, England. Titles of the five films which Dr. Moseley has made are: Calcified Deposits in the Rotator Cuff (1948), Ruptures of the Rotator Cuff (1949), Anterior Dislocations of the Shoulder (1949), Surgical Anatomy of the Shoulder (1949) and Inferior Relations of the Shoulder Joint (1950). These films were made available through Davis & Geck.

Dr. Moseley will lecture on the shoulder—his work on which has been recognized with several special honors, including a medal presented last year on the occasion of his visit to the University of Ghent as guest speaker. His first paper, Rupture of Rotator Cuff of the Shoulder, will be presented at 2:00 p.m. Friday, March 21, immediately following lunch. Dr. Moseley's second talk, Special Operative Treatment of Recurrent Dislocation of the Shoulder, will be given at 11:40 a.m. Saturday, March 22, and will close the meeting.

Subjects to be discussed during the two-day session are: renal trauma, shock, vascular trauma, crushing injuries of the chest, cardiac tamponade, peripheral nerve injuries, litigation, facial skeletal injuries, burns, intermedullary nailing of shaft fractures, "rear end collision" neck sprains, pitfalls in repair of eyelid injuries, hand injuries, nonpenetrating lesions of the abdomen, trauma to the larynx, and acute and subacute subdural hematomas. Dr. Moseley will discuss the papers presented.

A panel discussion on Care of the Patient with Multiple Injuries, moderated by Dr. Moseley, will open the Saturday session, immediately following the breakfast meeting at 8:00 a.m. The banquet will be held Friday evening. A formal invitation is not necessary to attend the Clinics, the Dinner or the Breakfast.

Clyde L. Wagner and Robert E. Florer of Seattle are in charge of program arrangements.

Correction:

News story appearing on page 93 of the January 1958 issue was incorrectly entitled, American College of Surgeons to Meet January 17 in Seattle. Title should have read as follows: American College of Physicians to Meet January 17 in Seattle.



LEFT: Milo T. Harris, President of WSMA, and C. D. Hogenson, President of the Walla Walla Valley Medical Society. RIGHT: Robert A. Campbell, newly-elected President of the county society.

Proposed Dues Increase Discussed By President Harris at Walla Walla

Milo T. Harris of Spokane, President of Washington State Medical Association, spoke before the Walla Walla Valley Medical Society on December 12, when the society held its annual election.

Robert A. Campbell of Walla Walla was elected president; Robert W. Jamison, Walla Walla, vice-president, and John B. Adams, Walla Walla, secretary.

Dr. Harris told society members of increasing demands on the State Association for greater services and said it was evident there would have to be an increase in dues if these demands were to be met.

Only a week later the Association's Executive Committee recommended for approval of the Board of Trustees that the annual dues be raised from $35 to $45. If the Board approves the recommendation, the matter will be presented to the House of Delegates at the September convention.

The President pointed out that the annual convention was being held this year in Spokane for the first time since 1954, and that this afforded a fine opportunity for Eastside members to participate in the scientific programs.

New Department Approved for UWSM

Board of Regents of the University of Washington School of Medicine have approved the establishment of a Department of Physical Medicine and Rehabilitation in the School of Medicine. The new department is headed by Justus Lehmann, who joined the faculty earlier last year.

A $34,700 gift from the Sister Elizabeth Kenny Foundation of Minneapolis will be used for equipment in the Rehabilitation Center which will be an important part of the department. The Center will be unique in the Pacific Northwest in offering a teaching program along with restorative services to the handicapped and disabled. Opening of the Center in the University Hospital is scheduled for this year.

The curriculum of the new department will provide training for medical students and a graduate program for physicians who wish to specialize in rehabilitation work. In addition, training courses will be offered for physical and occupational therapists, speech and hearing therapists, and medical and psychiatric social workers.

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Obituaries

Dr. George I. Birchfield, 75, former Seattle physician, died November 15 in Burbank, Calif. Dr. Birchfield had moved to Burbank about four years ago at the time he retired from active practice. He was graduated from the National University of Arts and Sciences Medical Department, St. Louis, in 1916.

Dr. Frank A. Plum, 71, Tacoma EENT specialist, died November 16 of a coronary occlusion. Dr. Plum received his medical degree in 1915 from the University of Pennsylvania School of Medicine. Following graduation, he served as house surgeon at Queens Hospital in Honolulu, and then went on to take his specialty training at the Mayo Clinic. Dr. Plum had practiced in Tacoma for the past 20 years.

Dr. Rush Banks, 85, pioneer Centralia physician, died November 27 of hemorrhage, shock and infection from ulcerating, infected carcinoma of the right hand and upper extremities due to x-ray burns suffered 30 to 40 yeas ago. Dr. Banks received his medical training at the University of Michigan Medical School from which he was graduated in 1901. He practiced at Uniontown for two years before locating in Centralia where he served the community for more than half a century before retiring three years ago because of ill health. He had been awarded a 50-year pin from Washington State Medical Association of which he was an honorary member.

Dr. John H. McArthur, 89, died November 29 in a Centralia hospital of bronchopneumonia due to cerebrovascular disease. Dr. McArthur located in Oakville 51 years ago and practiced there until his retirement 10 years ago. He received his medical degree in 1897 from Queen's University Faculty of Medicine, Kingston, Ontario.

Dr. David A. Ewing, 80, who had practiced in Seattle for more than 50 years, died November 30 of an acute coronary thrombosis. Dr. Ewing received a 50-year pin from Washington State Medical Association in 1954. He was an honorary member of the Asociation. Dr. Ewing was graduated from the University of California School of Medicine in 1904.

Dr. Victor E. Bellinger, 65, retired Seattle and Orcas Island physician, died November 1 of anoxia and cyanosis due to right heart failure. Dr. Bellinger received his medical training at Drake University College of Medicine, Des Moines, Iowa, from which he was graduated in 1913. Following service with the army in France during World War I, he practiced in New York. He located in Bellingham in 1929 and then practiced in Seattle from about 1935 until he moved to Orcas Island in 1952. Dr. Bellinger had been on the staff of Northern State Hospital at Sedro Woolley and Eastern State Hospital at Medical Lake in recent years.

Dr. Paul L. West, 84, retired Chelan and Douglas County health officer, died December 2 in a Wenatchee hospital of a cerebrovascular accident. Dr. West was graduated in 1902 from the University of Colorado School of Medicine. Before being appointed health officer for Chelan and Douglas Counties in 1924, Dr. West held that post in Okanogan County. He retired in 1955.

Dr. Herbert E. Tomlinson, 59, of Port Angeles, died at his office December 4 of a heart attack. Dr. Tomlinson attended the University of Vermont College of Medicine from which he was graduated in 1925. He took his internship at the Lying-In Hospital in New York and the Norwegian Deaconess Hospital in Brooklyn. He served with the U.S. Army from 1926 until the end of World War II. Following separation from the service, Dr. Tomlinson joined the faculty of the University of Washington School of Medicine where he taught until 1949 when he moved to Port Angeles to begin private practice.



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(*The President is ex-officio member of all committees.*)

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(Three members selected by the *Board of Trustees* from among its members, to serve during the pleasure of the Board. ((President-Elect, Past-President and Secretary-Treasurer constitute Executive Committee, with President as an ex-officio member. BT action 11-4-45.)) *PURPOSE*: Shall review and pass on all bills incurred by the Association and must approve same before Secretary-Treasurer may pay them. Shall prepare and present a general fund budget, with approval of the Finance Committee. Shall supervise and direct the Executive Secretary and other employees. Shall exercise, (except when the Board of Trustees is in session), any and all powers of the Board of Trustees and the management of the affairs and business of this Association. 1940 HD.).

James H. Berge, 714 Stimson Building, Seattle, *Chairman* (Past-President)
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(Appointed to one-year terms by *President. PURPOSE*: To study health problems of this age group; and to determine how these people can continue to work in business and industry and not become dependent on society for their livelihood. 1949 HD.)

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(Continued on page 231)



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(Appointment by *President*. *PURPOSE*: To represent the Association in the Legislative Council's investigations of the Basic Science Law, and to study proposed changes in the Law. 1952 BT.)

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(Appointed by *President*. *PURPOSE*: To work on problems of civil defense and civil disaster. 1950 EC., Rev. 1957 EC.)

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R. A. Benson, 245 4th Street Building, Bremerton

FINANCE COMMITTEE—Standing Commitee:

(Three members, one elected annually for a three-year term by the *House of Delegates, and the Secretary Treasurer*. The Committee shall annually designate its own Chairman. *PURPOSE*: To supervise funds, investments and expenditures of the Association. Shall prepare a budget of the Association's expenditures for the ensuing year, which shall be presented to the Board of Trustees for approval prior to January 31.)

(Note: Chairman to be designated by committee)

	Term Expires
V. W. Spickard, 515 Cobb Building, Seattle, *Chairman*	1959
Donald T. Hall, 1307 Columbia, Seattle	1960
Frederick A. Tucker, 7302 Woodlawn Avenue, Seattle	1960
Bruce Zimmerman, 902 Boren Avenue, Seattle	1958

GRADUATE MEDICAL EDUCATION COMMITTEE ON—Standing Committee:

(Three members, one appointed each year for staggered three-year terms by the *President*. *PURPOSE*: To act in conjunction with the Board of Trustees, to provide postgraduate courses and other instruction for the component societies and the members of the Association. Shall coperate with the AMA Council on Medical Education and Hospitals. All questions pertaining to graduate medical education shall be referred to this Committee for consideration and action. 1906, Rev. 1956 HD.)

	Term Expires
R. H. Loe, 724 Broadway, Seattle, *Chairman*	1958
Emory J. Bourdeau, 1833 Harvard, Seattle	1959
C. P. Schlicke, West 312 8th Avenue, Spokane	1960

NOTE: 1957 House of Delegates recommended: That membership of this Committee revert to three members, as provided in the By-Laws.

GRIEVANCE COMMITTEE—Standing Committee:

(Nine members, three to be elected by the *Board of Trustees* each year for three-year terms. No two members to be from the same local society. *PURPOSE*: to investigate and supervise the ethical deportment of the members of the Association, and to make periodic recommendations for the improvement of professional conduct, and the Committee shall prefer charges before the appropriate body against any physician deemed by the Committee to be guilty of unprofessional conduct. 1950 HD.)

	Term Expires
Frank H. Douglass, 736 Broadway, Seattle *Chairman*	1959
C. E. Benson, 245 Fourth Street Building, Bremerton	1959
H. Dewey Fritz, Cathlamet	1960
David W. Gaiser, Paulsen Medical Dental Building, Spokane	1959
S. E. Herrmann, 707 Medical Arts Building, Tacoma	1958
Robert B. Hunter, 700 Murdock, Sedro Woolley	1960
F. F. Radloff, Wenatchee Valley Clinic, Wenatchee	1958
William D. Turner, 903 Market Street, Chehalis	1958
Arthur A. Yengling, Walla Walla Clinic, Walla Walla	1960

INDUSTRIAL HEALTH, COMMITTEE ON—Standing Committee:

(Five members appointed by the *Board of Trustees* to serve during its pleasure. *PURPOSE*: To inform itself concerning the actual conditions relating to the health control of and medical care rendered as a result of industrial accidents to employed individuals, and shall study and recommend desirable criteria in the field. It shall establish relations with other agencies having a legitimate interest in the health of industrial workers, and shall cooperate with the Council on Industrial Health of the AMA. 1953 HD.)

Wayne Zimmerman, 1212 So. Eleventh St., Tacoma, *Chairman*
L. E. Hildebrand, P.O. Box 1627, Wenatchee
R. C. Miller, Medical Dental Bldg., Spokane
Floyd J. O'Hara, 111 W. 39th Street, Vancouver
Raymond E. Seth, 1500 First Avenue South, Seattle

INDUSTRIAL INSURANCE, COMMITTEE ON—Standing Committee:

(Six members appointed by the *Board of Trustees* for terms of three years each, except that two of the initial appointees shall serve for one year, and two shall serve for two years, to the end that in succeeding years, two appointments shall be made annually. *PURPOSE*: To represent the Association in dealing with the State Department of Labor and Industries. 1953 HD, Rev. 1957 HD.)

(Continued on page 232)

(Continued from page 231)

Term Expires

Don G. Willard, 1525 Medical Arts Bldg., Tacoma, *Chairman* 1960
Edward F. Cadman, Box 489, Wenatchee 1958
Morris J. Dirstine, 322 Cobb Bldg., Seattle 1960
Leonard Dwinnell, Paulsen Medical Dental Building, Spokane 1959
Leslie H. Frewing, 221 Medical Arts Bldg., Vancouver 1959
Herbert C. Lynch, 307 So. 12th Ave., Yakima 1958

MATERNAL AND CHILD WELFARE COMMITTEE—Special Committee:

(Appointed to five-year terms by *President*. *PURPOSE*: To investigate and compile statistics on the maternal and child welfare status throughout the State and to make recommendations in this field to the Washington State Medical Association. 1938, Amended 1955 HD.)

Term Expires

Bruce Donaldson, 532 Stimson Building, Seattle, *Chairman* 1961
Sherod M. Billington, 1305 Seneca, Seattle 1960
Allen C. Boyce, 978 Medical Dental Bldg., Spokane 1963
Keith Cameron, 529 West 4th, Olympia 1963
Lewis H. Carpenter, 327 N. E. 5th, Camas 1958
Norman W. Clein, 1155 10th Avenue North, Seattle 1963
Charles W. Day, 1420 Seneca, Seattle 1959
Walter S. Keifer, Jr., 1115 Boylston Avenue, Seattle 1962
Robert G. Lipp, Medical Center Bldg., Spokane 1963
W. C. McMakin, 105 W. 30th, Vancouver 1960
Roderick A. Norton, 1106 So. 4th St., Tacoma 1959
Bradford L. Ostrom, 1014 Summit Ave., Seattle 1959
Paul G. Peterson, Medical-Dental Bldg., Seattle 1962
D. H. Seacat, 3700 Main St., Vancouver 1963
Robert C. Stottler, 55 Tietan, Walla Walla 1961
E. H. Wyborney, 433 East 8th, Port Angeles 1963

MEDICAL DEFENSE COMMITTEE—Standing Committee:

(Seven members, one from each congressional district, ((and the Secretary-Treasurer)), elected for three-year terms by the *Board of Trustees*. *PURPOSE*: To investigate all reported claims against members of this Association for compensation for injuries alleged to have resulted from malpractice. Determine, as nearly as may be practicable, the circumstances leading up to the making of the claim itself and the grounds on which the claim is based. If the Committee believes a claim unjust, it shall cooperate, so far as it can lawfully do so, with the member against whom the claim has been made and with his counsel. If the Committee believes that a claim is a just claim, it shall cooperate with the member against whom the claim is made and with his counsel, so far as it can lawfully do so, in effecting an equitable settlement. 1913, Amended 1956 HD.)

District		*Term Expires*
1	Donald T. Hall, 1307 Columbia St., Seattle, *Chairman*	1958
3	Emmett L. Calhoun, Becker Building, Aberdeen	1958
6	W. H. Goering, 919 So. 9th, Tacoma	1958
5	W. W. Henderson, Medical-Dental Bldg., Spokane	1958
2	W. C. Moren, Bellingham Medical Center, Bellingham	1958
4	M. W. Tompkins, 120 East Birch, Walla Walla	1958
	Frederick A. Tucker, 7302 Woodlawn, Seattle, (Sec'y-Treasurer)	1960

MEDICAL ECONOMICS, COMMITTEE ON—Standing Committee:

(Three members appointed by the *Board of Trustees* to serve three-year staggered terms, one to be appointed annually. *PURPOSE*. To study and investigate, so far as it and the Board of Trustees may deem practicable or advisable, such phases of general economics as have a bearing on the practice of medicine. 1941. Reactivated 1956 HD.)

Term Expires

Alfred O. Adams, Medical-Dental Building, Spokane 1959
Robert F. Kaiser, 1130 Forest St., Bellingham 1958
(Additional members to be appointed)

MEDICAL EDUCATION CAMPAIGN FUND COMMITTEE—Special Committee:

(Appointed by *President*. *PURPOSE*: To stimulate interest in the various county societies in order to raise funds for the American Medical Education Foundation. ((1951 BT.)) To organize, publicize and promote National Medical Education Week; to stimulate and increase publicity through various county chairmen, with the help of the Woman's Auxiliary, in promotion and collection of funds for the A.M.E.F.; to establish a booth at the Annual Meeting of the Association, for publicizing A.M.E.F. functions. (1957 HD.)

Francis M. Lyle, Paulsen Medical Dental Building, Spokane, *Chairman*
Arnold J. Herrmann, 707 Medical Arts Bldg., Tacoma
James Tate Mason, Jr., 1118 Ninth Avenue, Seattle
Leif K. Pratum, 2271 E. 51st St., Seattle
C. R. Viers, Ferndale

MEDICAL SCHOOL, TEACHING AND RESEARCH HOSPITAL COMMITTEE—Standing Committee:

(Appointed to one-year terms by *President*. *PURPOSE*: To provide permanent liaison between the Medical School Administration and the WSMA; to maintain the principles and policies, as explained in the two resolutions regarding the Medical School Hospital, adopted by the 1955 House of Delegates, and as they may be modified or changed by the House of Delegates in the future; and to devise methods and procedures necessary for the implementation of these policies. ((Rev. 1956 HD.)) To develop closer liaison between the Medical School and the WSMA in consideration of the budgetary requirements of the Medical School and to make recommendations to the WSMA as to attitudes and help to the School in its relation with the State Legislature. 1957 HD.)

Hale Haven, 1118 Ninth Avenue, Seattle, *Chairman*
J. H. Delaney, West 312 8th Avenue, Spokane
Henry L. Harkins, U. of W. School of Medicine, Seattle
James W. Haviland, 721 Minor Avenue, Seattle
Edward D. Lynch, 307 So. 12th Ave., Yakima
J. L. Norris, 1408 12th Avenue, Longview
Leo J. Rosellini, 707 Medical Dental Bldg., Seattle
Warren Spickard, 1338 Medical Dental Bldg., Seattle
George A. Tanbara, Medical Center, Tacoma

MENTAL HEALTH, COMMITTEE ON—Standing Committee:

(Not less than nine members from the fields of surgery, internal medicine, pediatrics, public health, general practice, psychiatry and other specialties as may be deemed appropriate, three to be appointed annually by the *President*. The Chairman is to be a psychiatrist. *PURPOSE*: To study problems in connection with the State Mental Institutions and all matters of mental health pertinent to the practice of medicine. 1956 HD.)

Term Expires

Lester J. Henderson, 707 Minor Avenue, Seattle, *Chairman* 1960
Morton E. Bassan, 821 Boylston Ave., Seattle 1958
John E. Gahringer, Medical Arts Bldg., Wenatchee 1959
William A. Johnson, 1262 14th St., Longview 1959
Sol Levy, 227 Paulsen Medical Dental Building, Spokane 1960
C. O. Mansfield, Okanogan 1960
Henry McMillan Rodney, Paulsen Medical Dental Building, Spokane 1958
Galen A. Rogers, 900 7th Street, Clarkston 1959
Charles G. Sutch, Medical Arts Bldg., Richland 1960
J. W. Wallen, 1030 Fairhaven Ave., Burlington 1958

NEOPLASTIC COMMITTEE—Standing Committee:

(Twelve members, four to be appointed annually by the *President* for three-year terms. *PURPOSE*: To correlate the activities of the various agencies dealing with neoplastic disease with those of the Washington State Medical Association. 1921.)

	Term Expires
Clyde R. Jensen, 325 Ninth Avenue, Seattle, *Chairman*	1960
William H. Gray, 307 South 12th, Yakima	1959
William H. Hardy, 210 Becker Bldg., Aberdeen	1960
W. A. Johnson, 1417 15th, Longview	1958
B. C. Koreski, 1111 W. Spruce, Yakima	1960
Finch E. Parsons, West 66-8th Ave., Spokane	1959
Steven A. Porter, Okanogan	1960
Erroll W. Rawson, 1002 Medical Dental Building, Seattle	1958
Asa Seeds, 507 Medical Arts Bldg., Vancouver	1959
Alfred I. Sheridan, 452 Stimson Bldg., Seattle	1958
John B. Thierseh, 510 Stimson Bldg., Seattle	1959
Don G. Willard, 1525 Medical Arts Bldg., Tacoma	1958

PROFESSIONAL AND HOSPITAL RELATIONS COMMITTEE —Standing Committee:

(Seven members appointed by the *Board of Trustees* annually. *PURPOSE*: To study problems arising from institutional practice, in addition to other common professional relationships. To study problems presented by the practice of medicine in hospitals. 1944-Rev. 1956 HD.; 1957 BT designated number of members.)

Charles Kemp, 722 South "K" St., Tacoma, *Chairman*
Frederic Davis, 120 East Birch, Walla Walla
Joseph B. Finney, 210 Fernwell Bldg., Spokane
Robert E. Florer, 1102 Medical Dental Bldg., Seattle
Duncan Robertson, 5114 25th N. E., Seattle
Asa Seeds, 507 Medical Arts Bldg., Vancouver
A. G. Zoet, Herald Building, Bellingham

PUBLIC LAWS, COMMITTEE ON—Standing Committee:

(Consists of the President, the Chairman of the Committee on Public Relations and three members elected by the *Board of Trustees;* elected members to serve staggered three-year terms, one to be elected each year. Board of Trustees designates Chairman. *PURPOSE*: To keep informed with respect to laws, court decisions, court proceedings, administrative rules, proposed and pending legislation relating to public health, and such other matters as relate to the objectives of this Association. 1909.)

	Term Expires
L. A. Campbell, Security Building, Olympia, *Chairman*	1958
Milo T. Harris, 252 Paulsen Bldg., Spokane	1958
E. Harold Laws, 1633 Medical Dental Building, Seattle	1958
Frank R. Maddison, 1135 Medical Arts Bldg., Tacoma	1960
Clayton P. Wangeman, 1110 Harvard Avenue, Seattle	1959

PUBLIC RELATIONS, COMMITTEE ON—Standing Committee:

(Nine members, three to be appointed annually for terms of three years each by the *Board of Trustees*, who shall designate the Chairman. *PURPOSE*: The Board of Trustees shall define the duties and direct the activities of the Public Relations Committee. 1938, Amended, 1955 HD.)

	Term Expires
E. Harold Laws, 1633 Medical Dental Bldg., Seattle, *Chairman*	1958
A. Bruce Baker, 1272 Paulsen Bldg., Spokane	1958
Louis S. Dewey, Okanogan	1959
Jack D. Freund, 21 N. Cascade, Kennewick	1959
Frederick M. Graham, 2724 Ellis Street, Bellingham	1960
Frank C. Henry, 1116 Summit Avenue, Seattle	1959
Arnold J. Herrmann, 707 Medical Arts Bldg., Tacoma	1958
John R. Hogness, 721 Minor Avenue, Seattle	1960
Charles D. Muller, 925 Adelle, Bremerton	1960

PUBLICATION COMMITTEE—Standing Committee:

(Three members, elected by the *Board of Trustees* each year. *PURPOSE*: To represent the Association as Trustees for the Northwest Medical Publishing Association. 1949 HD.)

Fred C. Harvey, 262 Paulsen Medical Dental Building, Spokane
Daniel R. Kohli, 533 Medical Dental Building, Seattle
(Additional member to be appointed)

REHABILITATION PROGRAMS, COMMITTEE ON—Special Committee:

(Seven members, representing physical medicine, orthopedics, internal medicine, general practice, surgery and some sub-specialties, such as ophthalmology, dermatology, etc., to be recommended by the *Board of Trustees* and approved by the State Board of Vocational Education. *PURPOSE*: To review any problems related to rehabilitation and to act as a Medical Advisory Committee for the Division of Vocational Rehabilitation of the State of Washington ((1956 HD.)); to act as the Medical Advisory Committee to the O.A.S.I. District Offices in the implementation of Public Law 880, in accordance with the principles of the AMA resolution. Rev. 1957 BT.)

Donal R. Sparkman, 900 Boylston Avenue, Seattle, *Chairman*
Albert L. Cooper, 742 Med-Dent. Bldg., Seattle
Murray L. Johnson, 1412 Medical Arts Bldg., Tacoma
M. R. Mongrain, 2402 Broadway, Vancouver
Wendell G. Peterson, 1422 Medical Arts Bldg., Tacoma
William R. Rownd, Jr., 925 Adelle St., Bremerton
Robert W. Simpson, 833 Med-Dent. Bldg., Seattle

REVISION OF CONSTITUTION AND BY-LAWS, COMMITTEE ON—Special Committee:

(Appointed by the *Executive Committee*. *PURPOSE*: To study proposed revisions of the Constitution and By-Laws. 1947 BT.)

V. W. Spickard, 515 Cobb Building, Seattle
Alfred O. Adams, Med-Dent. Bldg., Spokane
Morton W. Tompkins, 120 East Birch, Walla Walla

RURAL HEALTH, COMMITTEE ON—Special Committee:

(Appointed by the *President*, for one-year terms. *PURPOSE*: To encourage the setting up of rural health councils; to maintain liaison and promote medical public relations with various farm organizations and groups; and to work with the AMA Council on Rural Health. 1949 HD. Rev. 1957 HD.)

John L. Hardy, Endicott, *Chairman*
Thomas L. Corlew, 18532 Firlands Way, Seattle
M. W. Fish, 116 Wood No. St., Sedro Woolley
David L. Glenn, P.O. Box 55, Vaughn
J. R. Hahn, Arlington
Lauren H. Lucke, Third and Main, Sultan
Leonard McNamara, Box 128, Soap Lake
Arnold C. Tait, 1614 Edison Avenue, Sunnyside

SCHOOL HEALTH, COMMITTEE ON—Special Committee:

(Not less than five members appointed by the *President. PURPOSE*: To investigate and study public school health activities and report to the Board of Trustees with recommendations ((1956 HD.)); to urge each county medical society to form a Committee on School Health to work with the local school districts; to act in an advisory capacity to the component society committees and to state agencies interested in the problems of school health. Rev. 1957 HD.)

J. M. Patton, Paulsen Medical Dental Building, Spokane, *Chairman*
Thomas L. Corlew, 18532 Firlands Way, Seattle
F. L. Dunnavan, Arts Building, Vancouver
J. D. Fouts, Box 1078, Bellingham
Orvis A. Harrelson, 1035 Medical Arts Bldg., Tacoma

SCIENTIFIC WORK COMMITTEE—Standing Committee:

(Consists of President as Chairman, Executive Committee Chairman and three members elected by the *Board of Trustees* for three-year staggered terms, so that the Board may elect one member each year to serve a three-

(Continued on page 235)

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(Continued from page 233)

year term. One member to be from the county society where the Annual Session will be held. *PURPOSE*: To prepare the program for the annual meeting and also the scientific exhibits. To be the editing agent of the Association and to arrange, if ordered by the House of Delegates, for the proper publication of the transactions of the Association in its official organ. It may delegate its power as it sees fit. 1931.)

	Term Expires
Milo T. Harris, 252 Paulsen Bldg., Spokane, *Chairman*	1958
James H. Berge. 714 Stimson Bldg., Seattle	1958
Harold J. Gunderson, Central Bldg., Everett	1959
William M. M. Kirby, U. of W. School of Medicine, Seattle	1960
Francis M. Lyle, 381 Paulsen Bldg., Spokane	1958

SCIENTIFIC EXHIBIT COMMITTEE—Subcommittee of Scientific Work Committee:

L. S. Highsmith, 507 Medical Bldg., Spokane, *Chairman*
Dexter R. Amend, West 104 5th Ave., Spokane
Thomas E. Canning, 680 Paulsen Medical Dental Building, Spokane

SCIENTIFIC PROGRAM COMMITTEE—Subcommittee of Scientific Work Committee:

Clyde A. Stevenson, Paulsen Building, Spokane, *Chairman*
Warren G. Hunzicker, 1568 Paulsen Bldg., Spokane
Francis M. Lyle, 381 Paulsen Bldg., Spokane
Ausey H. Robnett, Medical Center Bldg., Spokane

STATE DEPARTMENT OF HEALTH (ADVISORY) COMMITTEE—Standing Committee:

(Not less than five members appointed by the *President* for terms of one-year each. Committee may appoint from among the membership of the Association such number of subcommittees so constituted as it deems proper to work under its direction and control in such fields of public health as it may determine. 1957 HD recommends that continuity of service be considered in appointment of this Committee. *PURPOSE*: To keep in touch with and investigate matters concerned with the public health of the State and to carry on such activities in the field of public health and aid in the dissemination of public health information in relation thereto as the Board of Trustees may direct. 1944 HD. Amended 1956 HD.)

R. W. Kite, Box 487, Sunnyside, *Chairman*
Leroy O. Carlson, 120 East Birch, Walla Walla
Donovan O. Kraabel, 415 North 85th St., Seattle
Charles P. Larson, 1307 Medical Arts Bldg., Tacoma
Charles G. Sutch, 101 Medical Arts Bldg., Richland
Bruce Donaldson, 532 Stimson Bldg., Seattle

STATE DEPARTMENT OF PUBLIC ASSISTANCE (ADVISORY) COMMITTEE—Special Committee:

(Nine members to be appointed by the *President* for terms of one-year each. *PURPOSE*: To deal with problems of the State Department of Public Assistance. 1955 BT.)

Willard B. Rew, 307 South 12th Avenue, Yakima, *Chairman*
Burton A. Brown, Puget Sound Medical Bldg., Tacoma
Leonard M. McNamara, Box 128, Soap Lake
W. C. Moren, Bellingham Medical Center, Bellingham
H. T. Pederson, Medical Dental Building, Spokane
A. T. Perry, 721 Paulsen Bldg., Spokane
Phillip L. Peterson, King County Hospital, 9th and Jefferson, Seattle
William D. Turner, 903 Market St., Chehalis
John F. Vaughan, 815 Grand Avenue, Vancouver

VETERANS' MEDICAL CARE, COMMITTEE ON—Special Committee:

(Consists of the AMA Delegates. *PURPOSE*: To confer with Veterans Administration Consultants and the deans of our medical schools relative to the many problems that have been stated in the Report on the Veterans Affairs Conference as adopted by the 1957 House of Delegates; and to urge the AMA to carry out in a more extensive way the Washington Resolution opposing veterans Administration care of veterans otherwise insured, as adopted by the House of Delegates of the AMA in Seattle, November 1956. Reactivated 1957 EC.)

A. G. Young, Doneen Bldg., Wenatchee, *Chairman*
M. Shelby Jared, 1309 Seventh Avenue, Seattle
Jess W. Read, 1125 Rust Bldg., Tacoma

DELEGATES AND REPRESENTATIVES OF WSMA TO ALLIED ORGANIZATIONS

WASHINGTON STATE HEALTH COUNCIL, DELEGATE AND ALTERNATE:

	Term Expires
Delegate: Matthew H. Evoy, 317 Medical Dental Building, Seattle	May, 1958
Alternate: Huber K. Grimm, 629 Stimson Building, Seattle	May, 1958

WASHINGTON STATE HOSPITAL ADVISORY COUNCIL:

(*PURPOSE*: To plan for hospital and medical facilities in the State of Washington. Appointed by the Director of the State Department of Health for four-year terms, in accordance with the provisions of chapter 70.40 RCW.)

	Term Expires
°Mr. Ralph W. Neill, 1309 Seventh Avenue, Seattle	June 30, 1961
°Marion Kalez, Medical Dental Building, Spokane	June 30, 1961
Leo J. Rosellini, 707 Medical Dental Building, Seattle	June 30, 1961

°Executive Committee Representatives

(Continued on page 237)



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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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(Continued from page 235)

JOINT COMMISSION FOR IMPROVEMENT OF THE CARE OF THE PATIENT:

(Members appointed for three-year terms. Composed of twelve members, three from each of the following Parent Organizations: Washington State Medical Association; Washington State Nurses Association; Washington State League for Nursing and Washington State Hospital Association.)

WSMA Members	*Term Expires*
Arthur L. Ludwick, 603 Doneen Bldg., Wenatchee	Jan. 1, 1958
Clayton T. Noonan, 525 North 85th Street, Seattle	Jan. 1, 1960
Arthur B. Watts, Bellingham National Bank Building, Bellingham	Jan. 1, 1960

WASHINGTON PHYSICIANS SERVICE BOARD OF TRUSTEES AND OFFICERS:

	Term Expires
A. J. Bowles, Stimson Building, Seattle, *President*	1959
Heyes Peterson, 410 Medical Dental Building, Vancouver, *Vice-President*	1960
B. T. Fitzmaurice, 1012 Cobb Building, Seattle, *Secretary-Treasurer*	1960
Emmett L. Calhoun, Becker Building, Aberdeen	1959
L. A. Campbell, Security Bldg., Olympia	1958
Herbert C. Lynch, 21 Medical Center Building, Yakima	1959
Frank Rigos, 1514 Medical Arts Building, Tacoma	1958
William Tousey, Old National Bank Building, Spokane	1960
William D. Turner, 903 Market St., Chehalis	1958
Eugene F. McElmeel, 660 Medical Dental Building, Seattle, *Medical Advisor*	1958

COMMITTEES DISCONTINUED, ABOLISHED OR SUPERCEDED

CORONERS SYSTEM COMMITTEE	—1955 House of Delegates
DIABETES COMMITTEE	—1955 House of Delegates
HOSPITALS, SPECIAL COMMITTEE ON	—Combined with Professional and Hospital Relations Committee—1955 BT.
MEDICAL DISCIPLINARY ACT COMMITTEE	—1955 House of Delegates, "To be reconstituted upon request."
MEDICAL CARE, STUDY OF	—1954 Board of Trustees: "W.P.S. President to submit annual reports to the WSMA Board of Trustees."
MENTAL HYGIENE COMMITTEE	—See Mental Health Committee
NURSING CARE, STATE POLIO PLANNING	—1955 House of Delegates
RESOLUTIONS AND REPORTS ACTIVATING	—1956 House of Delegates
TUBERCULOSIS COMMITTEE	—1955 House of Delegates
VETERANS' MEDICAL CARE, SPECIAL COMMITTEE	—1955 Board of Trustees. "Functions to be continued by AMA Delegates." Reactivated 1957 HD.
ADVISORY COMMITTEE ON NURSING EDUCATION	—1953 House of Delegates: "Duties Delegated to Committee of Nine."
COMMITTEE OF NINE (See Joint Commission for Improvement of Care of the Patient.)	

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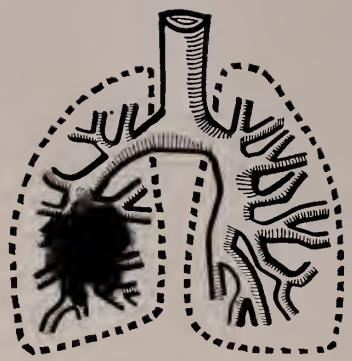
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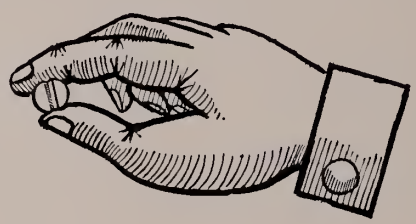
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SIXTY-SIXTH ANNUAL MEETING
July 6-9, 1958
Sun Valley

President, H. B. Woolley, M.D., Idaho Falls Secretary, W. B. Ross, M.D., Nampa Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

Work of Two Idaho Physicians Praised At AMA Philadelphia Meeting

AMA Philadelphia meeting early in December provided an opportunity for two Idaho physicians to receive plaudits for their activities. Receiving recognition at the session were Quentin W. Mack of Boise, and Donald K. Worden of Lewiston.

Dr. Mack, who serves as Chairman of our Association's Industrial Medical Committee, and who has served as a member of AMA's Committee on Medical Rating of Physical Impairment for more than two years, was delegated to meet with AMA Board of Trustees to explain the work of the committee in preparing a 115 page "Guide For the Evaluation of Permanent Impairment of the Extremities and Back," and received the plaudits of the Board for the committee's outstanding work. The Guide is expected to be of particular help to physicians in determining benefits under the Social Security Act and workmen's compensation cases.

AMA House of Delegates praised the committee for its work in "turning in a superb job on this difficult subject."

To make the committee work even more impressive, AMA is planning to print and distribute 250,000 copies of the Guide.

One of the most controversial issues at the Philadelphia session was fluoridation, and Dr. Worden took an active part in resolving this subject. A House of Delegates Reference Committee had under consideration a 27 page report on the subject and arguments, pro and con, were rather heated.

After listening for a while, Dr. Worden was recognized by the Committee chairman. Speaking as a physician and as a Mayor of one of Idaho's larger cities, Dr. Worden presented a most convincing discussion in favor of the report. When he had concluded his statement, the Chairman of the Committee personally thanked Dr. Worden for his presentation and the Reference Committee recommended adoption of the report by the House of Delegates. Needless to say, the report was adopted.

Others who participated in the Philadelphia AMA session were President Hoyt B. Woolley, member of AMA Council on Medical Service; Delegate Raymond L. White; Alternate Delegate Alexander Barclay, and S. M. Poindexter, Chairman of the State Board of Medicine and a member of the Executive Committee of the National Board of Medical Examiners.

Many Changes Made in New Industrial Accident Fee Schedule

New Industrial Accident Fee Schedule will be ready soon. Quentin W. Mack, Boise, Chairman of the Association's Industrial Medical Committee, reports that final negotiations for the new Fee Schedule of the Idaho Industrial Physicians' Manual and Fee Schedule are complete and that the new schedule has been submitted to the State Industrial Accident Board for printing.

A large number of changes will be found in the Fee Schedule. Many items which previously carried a price tag have been eliminated and carry the word *agreement.*

The term *agreement* in the fee schedule means that the fee must be agreed upon between the physician and the surety prior to providing the service to the injured person. This is a sufficient reason for establishing your own list of fees.

This means that you should charge your Community Rate for services you render an injured person covered by Workmen's Compensation, either through private insurance carriers or by the State Insurance Fund.

Dr. Mack and members of his committee call your attention to the following paragraph in the Industrial Accident Board Manual concerning fees:

> The statutory criteria for fixing reasonable medical fees is as follows:
> The pecuniary liability of the employer (insurance carrier) for treatment and other services herein required shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living when such treatment is paid for by the injured person. In determining what fees and charges are reasonable, the Board (Industrial Accident) shall consider the increased security of payment afforded by this act.

Bear River Society Elects Officers

Bear River Society has elected the following new officers for 1958:

PRESIDENT—Emmett E. Herron, Grace.
PRESIDENT-ELECT—Leo R. Hawkes, Preston.
SECRETARY-TREASURER—Allen H. Tigert, Soda Springs.
DELEGATE—Dr. Herron.
ALTERNATE DELEGATE—Dr. Hawkes.

Bear River Medical Society is once again the first society in the state to attain 100 per cent paid up membership.



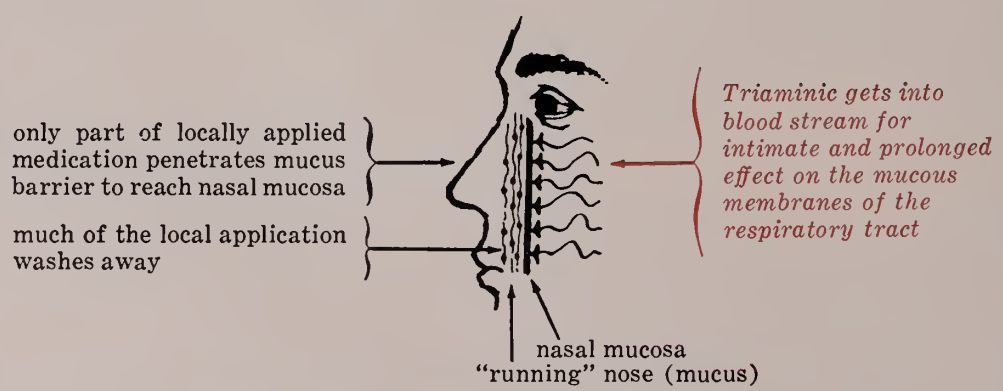
respiratory congestion orally

"This affords opportunity for shrinkage in areas that could not be approached by sprays, drops or actual topical applications."

—Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Comparison of action of topical decongestants and an orally administered decongestant

TOPICAL DECONGESTANT	TRIAMINIC ORAL DECONGESTANT
Duration of relief is brief	*Keeps nasal passages clear 6 to 8 hours*
Decongestion often followed by secondary congestion which may be equal to or even worse than the original condition	*Secondary congestion does not occur*
Local overtreatment may cause pathological changes in nasal mucosa	*No pathological changes in nasal mucosa*
Patients frequently experience "nose drop addiction"	*The "nose drop addiction" phenomenon does not occur*
Much of the medication is washed away by nasal mucus. Mucus often forms a barrier between the medication and the nasal mucosa	*Not affected by nasal mucus. Gets into the blood stream so that it has intimate and prolonged effect on nasal mucosa*



The Triaminic form and formulation, described in detail on the next page, have proved remarkably effective as an oral decongestant.

STOP respiratory congestion orally

relief in minutes... lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

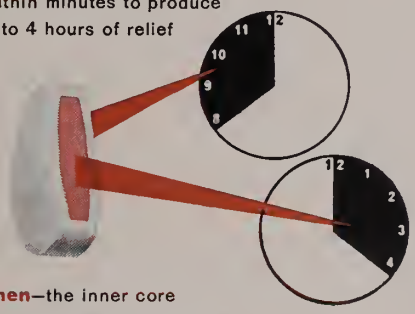
With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours—provides "around-the-clock" freedom from congestion on just three tablets a day

first—the outer layer dissolves within minutes to produce 3 to 4 hours of relief



then—the inner core disintegrates to give 3 to 4 more hours of relief

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

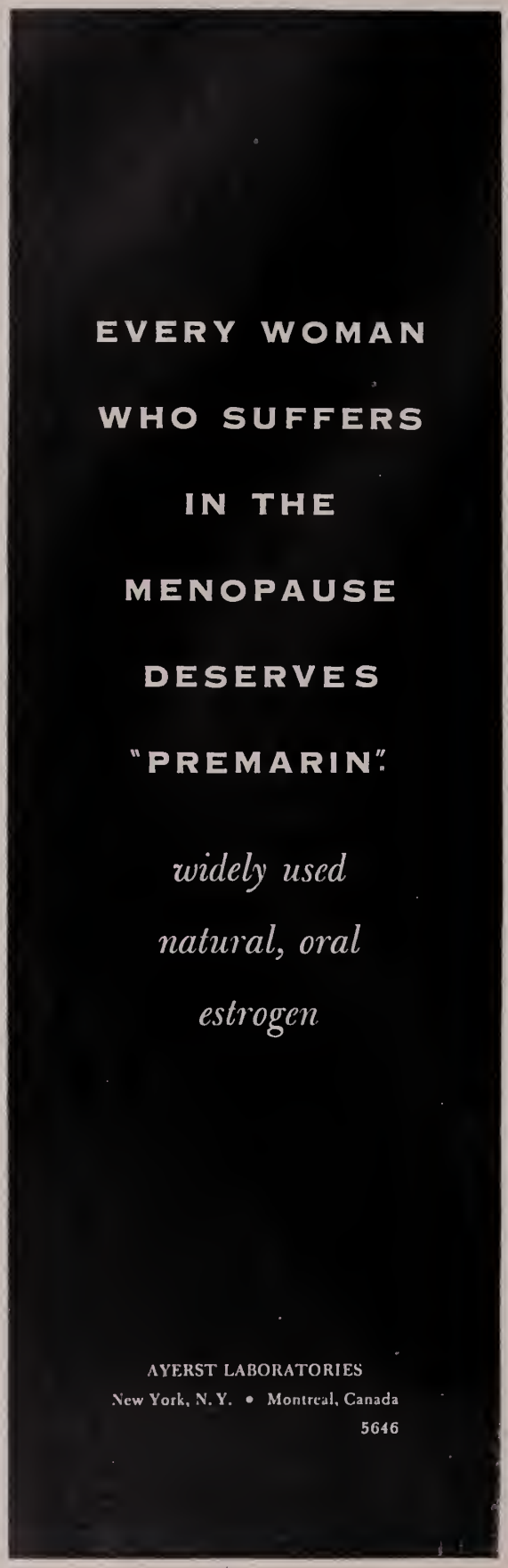
Dosage: **1** tablet in the morning, afternoon, and in the evening if needed.

Also available: Triaminic Syrup, for children and and those adults who prefer a liquid medication.

Triaminic® *"timed-release" tablets*

stop running noses...  *and open stuffed noses orally*

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Boise Valley Chapter of American College of Surgeons Meets in Boise

Boise Valley Chapter of the American College of Surgeons met in Boise on December 14 with more than 85 physicians attending. Speakers at the session included: Frank Gerbode, San Francisco, Professor of Surgery, Stanford College of Medicine, and Vice-President of the American College of Surgeons; William R. Tregoning, William D. Forney, Leon W. Nowierski, and Robert S. McKean, all of Boise, and Samuel C. Taylor of Nampa.

Everett N. Jones, E. D. Parkinson, Alfred M. Popma, Kenneth Helferty, Boise, and Dr. Gerbode participated in a panel discussion.

New officers elected are: President, A. Curtis Jones, Boise, succeeding Robert S. Smith of Boise; Secretary-Treasurer, Leon W. Nowierski, Boise, succeeding Richard A. Forney, Boise; President-Elect, H. M. Chalupka, Boise; and Councilor, Kenneth Helferty, Boise.

State Board of Medicine

Regular semi-annual meeting of the State Board of Medicine was held in Boise beginning January 13, 1958. A total of 14 candidates applied for licensure at this meeting.

Members of the Board are: S. M. Poindexter, Boise, Chairman; W. B. Ross, Nampa, Vice-Chairman; Paul M. Ellis, Wallace; Clyde E. Culp, Moscow; Leland K. Krantz, Idaho Falls, and Fred T. Kolouch, Twin Falls.

No Temporary Licenses were issued during December.

Medical-Legal Joint Meeting

The Doctor Defendant, a new movie produced by the American Medical Association and the American Bar Association, was shown to Boise attorneys and physicians from the Southwestern Idaho Society on December 18. More than 150 attorneys and physicians viewed the film. The joint session was sponsored by the Third District Bar Association of which Mr. Robert Green, Boise, is President.

Location

Clark T. Parker, Pocatello, has been released from active military duty and has accepted the position of University Physician at Idaho State College in Pocatello. Dr. Parker spent most of his service in Germany.

Obituary

Dr. Charles R. Lowe, 78, died December 16 in a Boise hospital. Born in Willard, Utah, September 30, 1879, Dr. Lowe was graduated from the University of Michigan School of Medicine in 1911 and practiced in Springfield, Illinois, from 1914 to 1916 when he moved to Boise to establish his practice. Dr. Lowe served as Superintendent of the Idaho State Hospital South, Blackfoot and also as superintendent of the Nampa State School. He was a veteran of World War I.



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—with a much higher degree of safety

—even when therapy is maintained for long periods

—at significant economy for the patient

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Hydrocortisone (alcohol)	2.5 mg.
Potassium salicylate	0.3 Gm.
Potassium para-aminobenzoate	0.3 Gm.
Ascorbic acid	50.0 mg.

DOSAGE: Two tablets four times daily. Additional information on request.

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Smith, Kline & French Foundation Makes First Public Report of Grants

Smith, Kline & French Foundation, independent philanthropic arm of Smith, Kline & French Laboratories, recently gave a detailed public accounting of its disbursement of $1,457,876 in the first four years (1953 through 1956) of its history. The Foundation was established by the pharmaceutical firm in December 1952 after years of informal company participation in philanthropy.

Of the five areas supported with Foundation funds, basic research in medicine and related sciences received the largest portion—$673,910 for projects unrelated to the firm's commercial research interests. Following in order were educational grants, $320,711; public charities and community improvement, $178,650; mental health, $157,500, and building and equipment funds, $127,105.

In the Northwest, the University of Oregon Medical School received two grants totaling $8000, and the University of Washington School of Medicine was awarded six grants totaling $17,300.

The two grants received by the University of Oregon were a $3000 grant awarded in 1953 for research in dermatology under the direction of Aaron B. Lerner, associate professor of dermatology, and an unrestricted grant of $5000 made in 1956 to the department of obstetrics and gynecology under the department head, Ralph C. Benson.

Departments and recipients of grants at the University of Washington were as follows: department of surgery in 1956 received an unrestricted grant of $5000 for research and teaching activities in anesthesiology under the direction of Lucien E. Morris, professor of anesthesiology; an unrestricted grant of $5000 was made to the department of medicine in 1956 to assist Paul Van Arsdel, Jr., to develop the then newly-created division of allergy; the College of Pharmacy in 1956 was given an $800 student fellowship in pharmacy for summer research under the direction of Louis Fischer, Ph.D., professor of pharmaceutical chemistry; and the School of Medicine received grants of $3000 in 1954 and $3500 in 1955 for research fellowships.

American College of Surgeons To Hold Sectional Meeting in March

According to Roland D. Pinkham of Seattle, Governor of the American College of Surgeons, the sectional meeting of the College will be held in Salt Lake City, Utah, March 17 through March 19. Dr. Pinkham reports that the sessions will be of particular value to those interested in traumatic surgery.

Topics covered will include: pediatric surgery, posttraumatic paraplegia, trauma, cancer, ACTH and cortisone in surgery, common duct stones, cardiac resuscitation, bleeding peptic ulcer, and hand surgery. A full day will be devoted to opthalmic surgery. Medical motion pictures will be shown also.

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BOOKS

"Some books ore to be tosted, others to be swollowed, ond some few to be chewed ond digested."
—Froncis Bacon

RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Pre-Employment Disability Evaluation: Detailed Policies Regarding Applicants Applying for Employment with Special Reference to Various Disabilities. By William A. Kellogg, M.D., F.A.C.S., Formerly Associated with the Medical Department, Douglas Aircraft Co., Inc., Long Beach, California Division; Clinical Professor of Surgery, New York Polyclinic Post-Graduate Medical School; Assistant Attending Surgeon, Bellevue, Broad Street, Gouverneur, and Polyclinic Hospitals, New York, N. Y. Preface by H. L. Herschensohn, M.D., Medical Director, Douglas Aircraft Co., Inc., Santa Monica, Calif. 155 pp. Price $10.50. Charles C Thomas, Springfield, Ill. 1957.

Fundamentals of Electrocardiography and Vectorcardiography. By Lawrence E. Lamb, M.D., Director of Cardiology and Chief, Department of Internal Medicine, Air University School of Aviation Medicine, USAF, Randolph Air Force Base, Texas; Consultant in Cardiology, 3700th USAF Hospital, Lackland Air Force Base, San Antonio, Texas. 142 pp. Illustrated. Price $9.50. Charles C Thomas, Springfield, Ill. 1957.

Practical Clinical Chemistry: A Guide for Technicians. By Alma Hiller, Ph.D., Associate Attending Biochemist in Charge of Clinical Chemistry, Presbyterian Hospital of the City of Chicago; Associate Professor of Biological Chemistry, University of Illinois College of Medicine, Chicago, Ill. 265 pp. Price $6.50. Charles C Thomas, Springfield, Ill. 1957.

The Human Ear Canal. By Eldon T. Perry, M.D., Instructor in Dermatology, Wayne State University. 116 pp. Illustrated. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

Hypnography: A Study in the Therapeutic Use of Hypnotic Painting. By Ainslie Meares, MBBS, B. Agr. Sc., DPM., Melbourne, Australia. 271 pp. Price $7.75. Charles C Thomas, Springfield, Ill. 1957.

Atomic Energy in Medicine. By K. E. Halman. 157 pp. $6.00. Philosophical Library, Inc., New York. 1957.

Symposium on Diseases and Surgery of the Lens. Editor, George M. Haik, M.D., F.A.C.S., Diplomate, American Board of Ophthalmology; Professor of Ophthalmology and Head of Department, Louisiana State University School of Medicine; Ophthalmic Surgeon, American College of Surgeons; Member, American Ophthalmological Society; Member, American Academy of Ophthalmology and Otolaryngology; Associate Editor, Elizabeth M. McFetridge, M.A.; and Art Editor, Don Alvarado, Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. 260 pp. Illustrated. Price $10.50. The C. V. Mosby Company, St. Louis. 1957.

Unexpected Reactions to Modern Therapeutics: Antibiotics. By Leo Schindel, M.D. 146 pp. Price $3.00. Charles C Thomas, Springfield, Ill. 1957.

The Handicapped and Their Rehabilitation. Edited by Harry A. Pattison, M.D., F.A.C.P., Director of The Potts Memorial Institute, Inc. Introduction by Major General Melvin J. Maas, USMCR, Ret. 944 pp. Illustrated. Price $14.75. Charles C Thomas, Springfield, Ill. 1957.

Diagnosis and Treatment of Infections. By D. Geraint James, M.A., M.D. (Cantab.), M.R.C.P. (Lond.), Clinical Asistant, The Middlesex Hospital, London. 234 pp. Price $6.00. Charles C Thomas, Springfield, Ill. 1957.

Advances in Tuberculosis Research, Vol. VIII: BCG, A Discussion of its Use and Application. Edited by Dr. Hans Birkhaeuser, Basel, Switzerland; and Dr. Hubert Block, Pittsburgh, Pennsylvania. 316 pp. Price $11.00. Charles C Thomas, Springfield, Ill. 1957.

Marriage and Personality; A Psychiatric Study of Inter-Personal Reactions for Student and Layman. By Ainslie Meares, MBBS., B.Agr.Sc., DPM. 157 pp. Price $3.95. Charles C Thomas, Springfield, Ill. 1957.

(Continued on page 248)

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"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

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(Continued from page 245)

Psychiatry and the Criminal; A Guide to Psychiatric Examinations for the Criminal Courts. By John M. MacDonald, M.D., Assistant Professor of Psychiatry, University of Colorado, School of Medicine; Assistant Medical Director, Colorado Psychopathic Hospital; Consulting Psychiatrist to the District Courts of Colorado; Member of the Royal College of Physicians, Edinburgh. 227 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1957.

Clinical and Immunologic Aspects of Fungus Diseases. By J. Walter Wilson, M.D., Los Angeles, California; Clinical Professor of Medicine, Dermatology, University of Southern California; Member and Director, American Board of Dermatology; Fellow and Director of the Faculty in Mycology, American Academy of Dermatology; Past Chairman, Section on Dermatology of the American Medical Association; Past Vice President of the Society of Investigative Dermatology; Fellow of the American Dermatologic Association; Consultant in Mycology and Dermatology, Long Beach Veterans Hospital; Chief of Dermatology Service, Childrens Hospital, Los Angeles; Attending Dermatologist, Los Angeles County General Hospital, Orthopaedic Hospital of Los Angeles. 280 pp. Price $6.75. Charles C Thomas, Springfield, Ill. 1957.

The Relation of Psychiatry to Pharmacology. By Abraham Wikler, M.D., National Institute of Mental Health, Addiction Research Center, Department of Health, Education, and Welfare, Public Health Service Hospital, Lexington, Kentucky. 322 pp. Price $4.00. Published for the American Society for Pharmacology and Experimental Therapeutics by Williams & Wilkins Co., Baltimore. 1957.

Aids to Bacteriology. Ed. 9. By H. W. Scott-Wilson, B.Sc., M.B., B.Ch. (Oxon.), Director of the Laboratories of Pathology and Public Health, London. 403 pp. Price $3.50. Bailliere, Tindall and Cox, London. 1957. Distributed by Williams and Wilkins Co., Baltimore.

An Introduction to Functional Anatomy. By David Sinclair, M.A. (Oxford), M.D. (St. Andrews), Professor of Anatomy, University of Western Australia; Late University Demonstrator in Anatomy, University of Oxford; Late Lecturer in Anatomy and Physiology, Dorset House School of Occupational Therapy, Oxford. 426 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

Cortisone Therapy Mainly Applied to the Rheumatic Diseases. By J. H. Glyn, M. A. (Contab.), M.D., M.R.C.P., D.Phys.Med., Consultant in Physical Medicine to the Prince of Wales and Tottenham Group of Hospitals, London, England. 162 pp. Price $10.00. Philosophical Library, Inc., New York. 1957.

Modern Sex Life. Rev. ed. By Edwin W. Hirsch, M.D. 160 pp. Price $.35. Signet Book published by The New American Library, New York. 1957.

Urine and the Urinary Sediment—A Practical Manual and Atlas. Ed. 2. By Richard W. Lippman, B.S., M.D., Fellow of the John Simon Guggenheim Memorial Foundation. 140 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

Principles of Ophthalmoscopy. By John K. Erbaugh, M.D., Norristown State Hospital, Norristown, Pa. 69 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

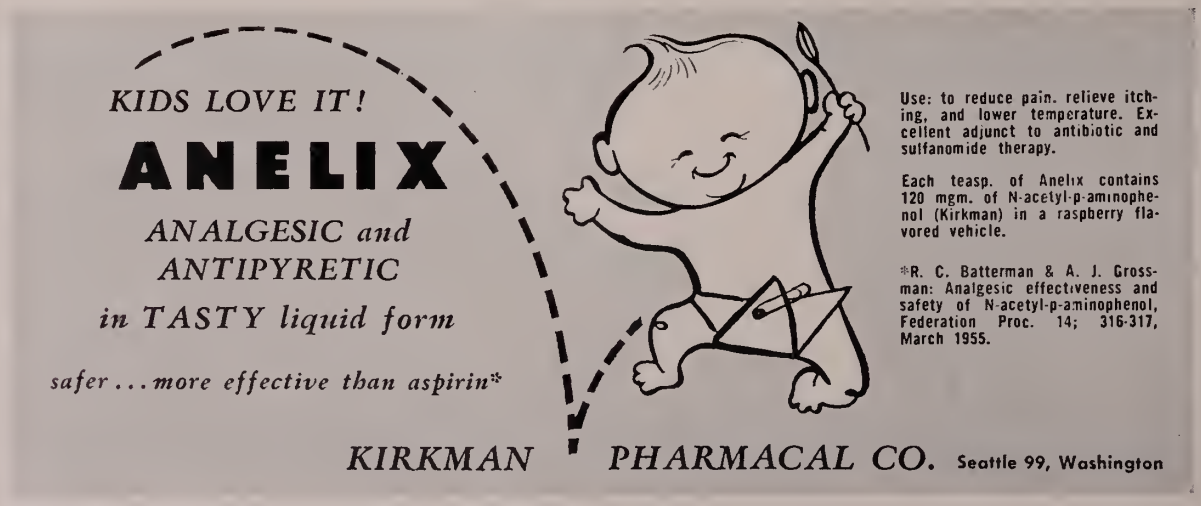
REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlamert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

HEADACHE: DIAGNOSIS AND TREATMENT. Ed. 2. By Robert E. Ryan, M.D., Department of Otolaryngology, St. Louis University School of Medicine. 421 pp. Price $6.75. The C. V. Mosby Co., St. Louis. 1957.

Headache is probably the most common affliction of man. It is a symptom of numerous diseases and pathologic conditions. Most physicians see many of these daily, whether they practice ENT, eye, neurology, internal medicine or general practice. Others are so rare as to never be seen by most doctors. This book gives a concise, adequate review of all the common forms of headache and a brief coverage of most of the rare forms. It is not a comprehensive monograph on the subject, but is intended as a guide to diagnosis and modern treatment. Naturally, more space is devoted to common causes than to rare forms of headache.

While the material in some chapters seems repetitious, the general outline of the book is good and



gives a concise review of the headache problem on an etiologic basis.

To anyone familiar with the problems of diagnosis and treatment of headaches, this book is of less value than it would be to medical students and those who have never read a comprehensive review of headache as a presenting symptom.

Noel B. Rawls, M.D.

PLASTER OF PARIS TECHNIQUE. By Marian English, S.R.N., R.F.N., Late Sister-in-Charge, Plaster Department, Ancoats Hospital, Manchester, England. Foreword by D. L. L. Griffiths, M.B.E., F.R.C.S., Surgeon-in-Charge, Manchester University Department of Orthopedic Surgery, Manchester Royal Infirmary; Senior Visiting Orthopaedic Surgeon, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry. 126 pp. Illustrated. Price $4.00. E. & S. Livingstone Ltd., Edinburgh and London. 1957. Distributed by Williams and Wilkins Co., Baltimore.

This book was written primarily for local use by an English nurse in a large teaching hospital. The first few chapters deal with the process of making plaster bandages, the equipment used in applying and removing casts, and cast room facilities. The next few chapters deal with general principles of applying plaster casts, the difficulties encountered in improper applications and methods of coping with these complications. The remainder of the book is dedicated to specific types of casts for specific conditions. The body is taken section by section and technique is outlined for application of casts for various injuries occurring in different sections of the body. Treatment of fractures or orthopaedic conditions is not dealt with, but as the name implies, this is a text book of plaster technique.

It would be of interest and value to medical students, interns and particularly nurses, but physicians should be well acquainted with technique outlined in this text.

E. E. Sprecher, M.D.

ALLERGY IN PEDIATRIC PRACTICE. By William B. Sherman, M.D., Associate Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons, New York; and Walter R. Kessler, M.D., Ph.D., Instructor in Pediatrics, Columbia University College of Physicians and Surgeons, New York. 296 pp. Illustrated. Price $9.25. C. V. Mosby Company, St. Louis. 1957.

This very readable volume is short enough to be of great value to the group for which it is intended—that is, the general practitioner and practicing pediatrician. The authors have focused their attention on diseases in which the allergic methods of diagnosis and treatment have proved of value. It is quite comprehensive. Much source material has been eliminated or condensed, adding inestimably to its readability. Illnesses in which allergic methods of diagnosis and treatment are not applicable are not considered as being proven of allergic origin. The authors attach a good deal of importance to the passive transfer method of testing.

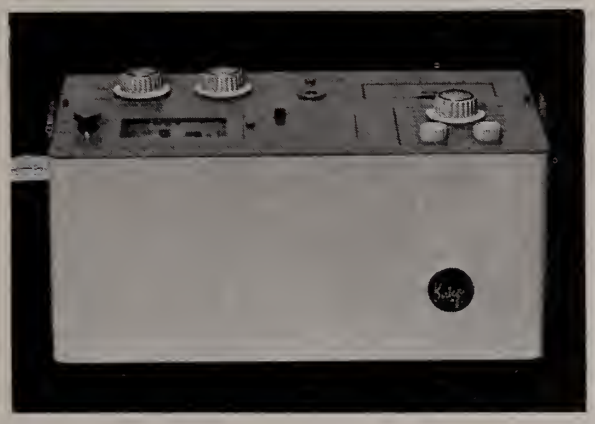
It is a distinct pleasure to find a textbook which is lucid, clear and to the point. This can enthusiastically be recommended to those who come in contact with allergy in a general or pediatric practice.

R. M. Overstreet, M.D.

RECOVERY FROM SCHIZOPHRENIA: THE ROLAND METHOD. By John Eisele Davis, Sc.D., President, Association for Physical and Mental Rehabilitation; Formerly, Chief, Corrective Therapy, Veterans Administration. 161 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

After reading this book, one wonders why it was published. It is a hodgepodge cookbook said to have been written for physicians, psychologists, social service workers, "activity therapists," vocational counsellors, nurses and "other paramedical personnel engaged in the field of mental treatment and rehabilitation." Described in a circumstantial manner, however, are the experiences and opinions of a re-

(Continued on page 252)

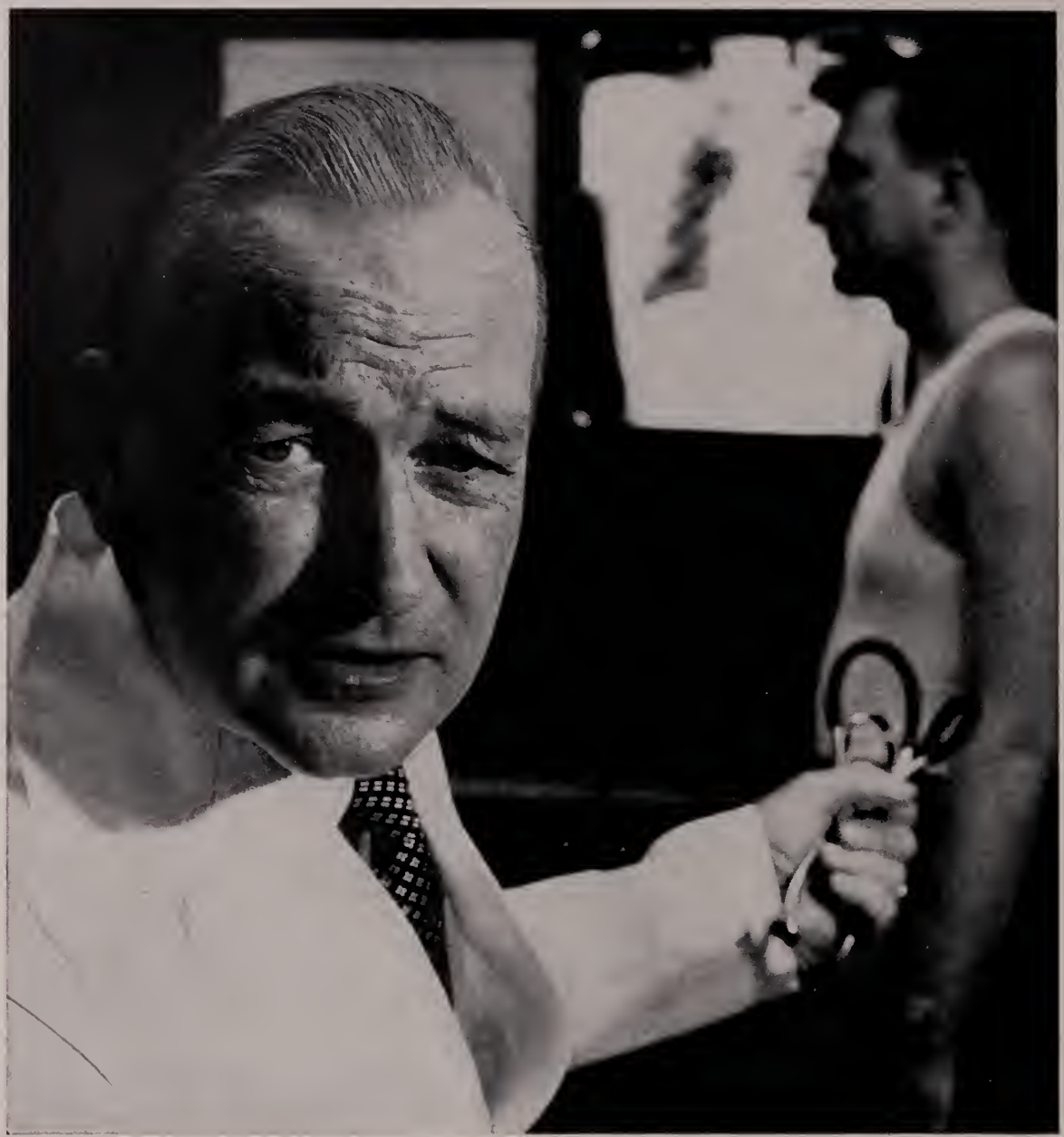


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(Continued from page 249)

creational worker functioning as a psychiatric attendant on wards housing neglected or chronic schizophrenics. Organization is poor and definition of terms is conspiculously lacking. Cliches, platitudes and pseudo-scientific jargon are liberally used. About the only good purpose to be served by the book is to point out what can happen in psychiatric hospitals when medical staffs are insufficient in number to assume responsibilities for patient treatment and care. Such medical responsibilities are often allowed to be preempted by other employees as administrators try to substitute programs for physicians. The book well illustrates the folly of this course. I cannot recommend Recovery from Schizophrenia for mental hospital libraries.

Charles H. Jones, M.D.

SURGERY IN WORLD WAR II: ORTHOPEDIC SURGERY IN THE MEDITERRANEAN THEATER OF OPERATIONS. By Oscar P. Hampton, Jr., M.D., Assistant Professor of Clinical Orthopedic Surgery, Washington University School of Medicine, St. Louis. Edited by Colonel John Boyd Coates, Jr., MC, Editor in Chief; Mather Cleveland, M.D., Editor for Orthopedic Surgery; and Elizabeth M. McFetridge, M.A., Associate Editor. 368 pp. Illustrated. Price $4.00. U.S. Government Printing Office, Washington 25, D.C. 1957.

I have enjoyed perusing this text, edited by Col. John Boyd Coates, Jr., Medical Corps, editor and chief, with Mather Cleveland, orthopedic surgeon of New York as the editor of Orthopedic Surgery.

It was my privilege to serve under Colonel Cleveland in the European Theatre of operations, World War II, where Col. Cleveland was the Chief Orthopedic Consultant. Experience gained in previous wars, and in North Africa prior to the invasion of the continent, helped formulate the policies and medical techniques used in the European theatre in treatment of orthopedic patients with war wounds.

This text is extremely useful and instructive to any surgeon who may be called upon to treat compound fractures or wounds from high velocity missiles or bomb fragments. It also applies to the treatment of industrial or private practice compound fractures in general. This text will also serve as a very instructive and practical text for medical students, for surgical and orthopedic residents, and for those men likely to be called into military service.

In the first section there is a reasonable but comparatively short section on administrative considerations which prevailed in the Mediterranean campaigns. This is followed by a discussion and historical account of the splinting procedures used and developed, with the relative merits of these procedures. An excellent treatise on management of compound battle fractures, in their various stages from first aid on, is presented. This includes the various methods used, that had been tried by different units, with comparative results.

It was in this theatre that "stage management" of compound fractures and injuries was developed to such a degree that in both the European theatres and later in the Korean War, the value of this method of handling war wounds was established. The evolution of the use of various emergency splints is reviewed. The treatment of compound battle fractures and injuries of the extremities includes extensive wound trimming, with irrigation first and the use of local sulfanilamide or local penicillin plus wide open drainage and plaster immobilization. This made possible early transfer and transportation to rear echelons. At rear echelons, preferrably at a time prior to 10 days after wounding, the revision and closure, often with grafting or plastic procedures on the wound, preceded definite treatment of the fractures.

The detail of the treatment of the wounds and the discussion of the various features of the techniques of wound trimming or excision is very clearly formulated from adequate experience. The technique of maintaining reduction and alignment of compound



fractures is given excellent consideration. The question of internal fixation has been entered into. Compound fractures are then considered for each region anatomically. Adequate illustrations appear throughout the text. Statistical tables from various units of the Mediterranean theatre add to the educational value of this text.

There is a very authoritative dissertation on compound wounds of joints, with a history of the development of final technique. Amputations, especially initially, are given some consideration. An interesting discussion of non-combatant orthopedic lesions further amplifies the writing on orthopedic problems in the Army. The text is closed with a number of circular letters considered pertinent in the development of the treatment of the wounded, at certan dates in the campaigns.

I consider this treatise a valuable, modern text on war surgery and with a similar text compiled on orthopedic surgery of the European theatre, it represents a tremendous amount of surgical and orthopedic experience in warfare.

D. G. Leavitt, M.D.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY. Volume X: Regulation and Mode of Action of Thyroid Hormones. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Elaine C. P. Millar, A.H.-W.C., A.R.I.C. 311 pp. Illustrated. Price $8.50. Little, Brown and Company, Boston. 1957.

Some twenty years ago, it was the feeling of many clinicians and physiologists that most of the problems of thyroid gland function and action were solved. That such is not the case, in fact, that the more we know the less we know, is amply illustrated by this volume. The availability of I^{131} for tracer studies, newer chromatographic techniques and procedures whereby sub-cellular tissue fractions may be studied intensively have all contributed to a reawakening of investigational interest and hence to many new discoveries in the thyroid field.

This book is a record of a colloquium held in London in June of 1956 in which 32 of the foremost authorities on thyroid hormone action and regulation from Europe, New Zealand and the United States participated. Detailed technical papers dealing with such subjects as hypothalamus-pituitary-thyroid relationships, the thyroid iodine "pump," enzymic aspects of thyronine metabolism, metabolic products of triiodothyromine and cellular actions of thyroxine are present. The detailed records of discussion following each paper are included and invariably provide the reader with much valuable information and opinion. This is an excellent reference and source book for the investigator. It is not clinically oriented and hence of little interest to the pure clinician.

John R. Hogness, M.D.

A TEXT-BOOK OF X-RAY DIAGNOSIS in 4 Volumes, Vol. I, ed. 3. By British Authors. Edited by S. Cochrane Shanks, M.D., F.R.C.P., F.F.R., London; and Peter Kerley, C.V.O., C.B.E., M.D., F.R.C.P., F.F.R., D.M.R.E., London. 521 pp. 533 illustrations. Price $18.00. W. B. Saunders Company, Philadelphia and London. 1957.

Volume I of the third edition of A Text-Book on X-Ray Diagnosis contains 521 pages on diseases of the head and neck as seen at radiologic examination. This splendid English book was first published in 1938 and revised again in 1950. An increase of 100 pages in the third over the second edition is due, in part, to additions in the subject matter and, in part, to minor changes in format, making the book easier to read.

The book is divided into five parts: the central nervous system, the teeth and jaws, the eye, the accessory nasal sinuses, and the ear and temporal bone. The chapter on the central nervous system is excellent and has more additions and revisions than the other four chapters. There are good descriptions on the techniques of encephalography, ventriculog-

(Continued on page 258)

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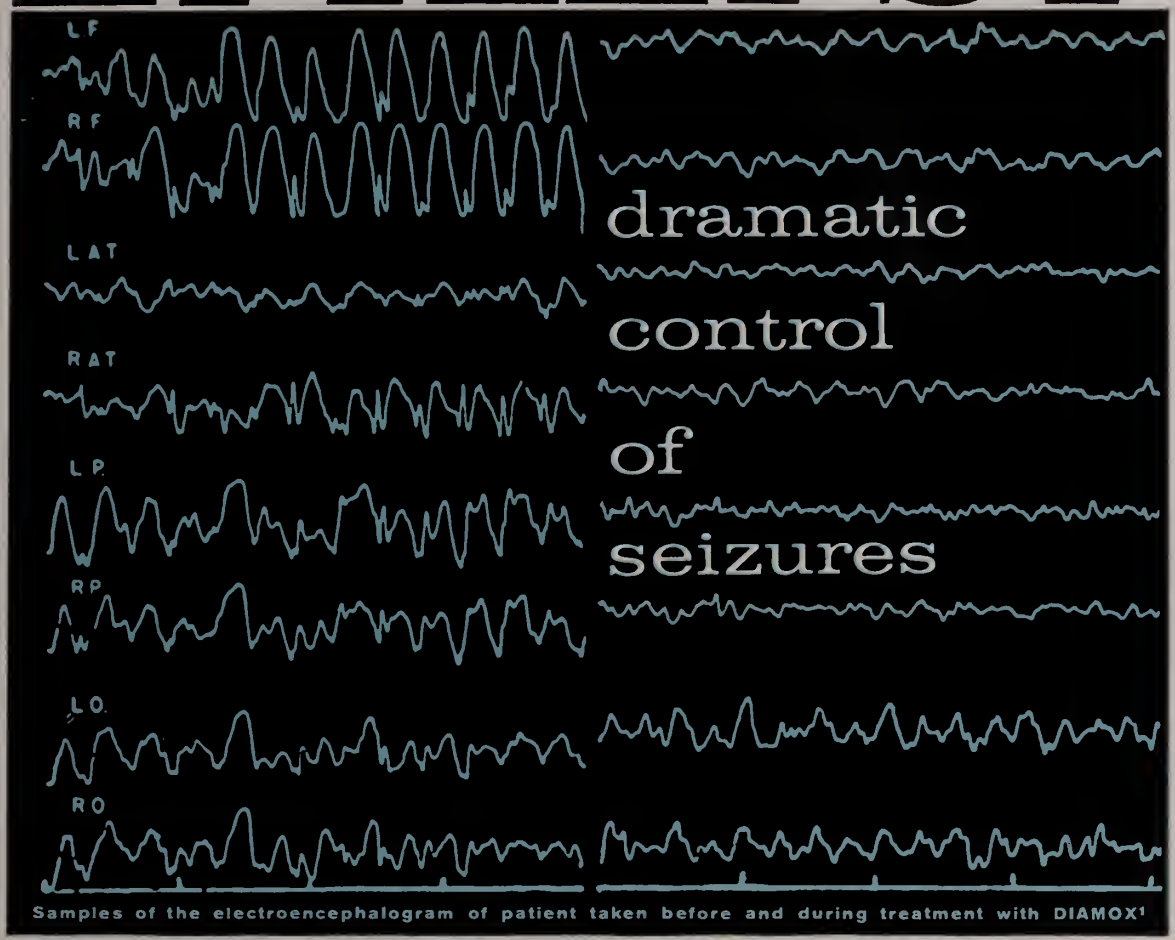


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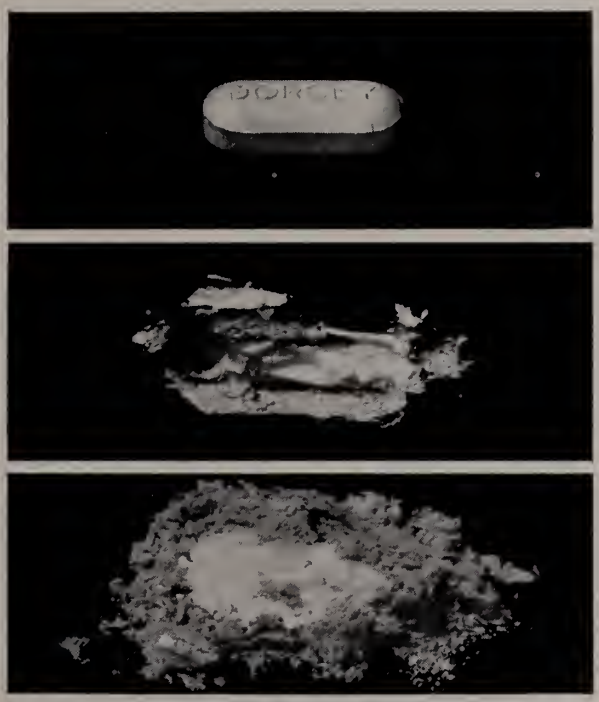


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(Continued from page 253)

raphy, angiography and myelography. Only minor changes are detected in the last four chapters. One of these concerns the discussion on internal resorption of the teeth.

The paper is better in quality and as a result the illustrations, which are in the positive, except those dealing with the teeth, show up better. As in the previous edition the bibliography and the index are adequate. The book is recommended reference to those interested in central nervous system radiology and other conditions of the head and neck.

F. E. Templeton, M.D.

GYNECOLOGIC SURGERY AND UROLOGY. By Thomas L. Ball, M.D., Assistant Professor of Clinical Obstetrics and Gynecology, Cornell University Medical College, New York. Foreword by R. Gordon Douglas, M.D., Professor of Obstetrics and Gynecology, Cornell University Medical College, New York. Illustrated by Daisy Stilwell. 547 pp. 161 plates. Price $20.00. The C. V. Mosby Company, St. Louis. 1957.

This is an attractive, well bound volume of 547 pages. Paper and printing are excellent. Illustrations are voluminous and well done. One cannot omit comment on the table of contents which is more detailed than customary and a desirable adjunct to a text of this type.

The material is divided into 12 sections, beginning with Minor Surgery and Office Procedures. The text gradually evolves into urologic consideration common to women and in Section 7, the largest, full consideration is given to various forms of therapy applicable to malignant vulval and pelvic disease. Here the various procedures involved in the different forms of ultraradical pelvic exenteration operations are well described.

This book clearly re-emphasizes the early and realistic point of view of Dr. Howard A. Kelly that gynecology and female urology are intimately and inseparably related, both in the field of diagnosis and therapy. Other texts such as those by TeLinde, by Wharton and by Everett have repeatedly stressed this generally overlooked concept.

The author stresses in Chapter 1 the importance of uterine dilatation and curettage, and enumerates 32 "surgical principles" governing this procedure. Unfortunately he fails to caution against the undesirability or danger of cervical manipulation and stretching in the presence of cancer or suspected cancer. Also, were he more familiar with the correct use of the Goodell dilator, he would probably refrain from making such sweeping comments concerning the dangers of its use. I would also take serious exception to the method he describes (pp. 25-26) of wiping out the uterine cavity with gauze after diagnostic curettage in order to obtain tissue for biopsy. It is, in my opinion, an indifferent and careless manner of treating tissue that is being obtained for purpose of histologic study. In fact, more space could be devoted advantageously to describing in more detail the method of obtaining and handling tissue obtained for biopsy.

The recommended use of exploratory colpotomy when used as a treatment for ectopic pregnancy, ovarian hemorrhage and section of the uterosacral ligaments for dysmenorrhea appear to me as unrealistically and dangerously over-reaching the permissible limits of this otherwise valuable procedure. In my experience, well defined and identifiable uterosacral ligaments are by no means always recognizible even on careful inspection at pelvic laparotomy. The surgical management of occluded fallopian tubes is well presented.

Backache as related to gynecology is well treated in Chapter 2, and congenital anomalies and their management are adequately described in Chapter 3. Infectious, trophic and dermatologic conditions are described in Chapters 5 to 7. Chapters 8 and 9 discuss the operation for relaxation and prolapse.



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I have little enthusiasm for the excessive plication of urethra and bladder, recommended by the author, for early cystocele and urethrocele. His failure to displace the bladder superiorly and to use other available paravaginal, paravesical and retropubic tissue to effectively replace bladder and urethra represent, I believe, real shortcomings.

Chapters 10, 11 and 12 concern urinary incontinence, fistulae, bladder surgery and uretero-intestinal anastomoses. An excellent discussion is given on urinary incontinence to which the author has directed much special personal study. A good description is given of bladder and urethral restitution for incontinence utilizing the vaginal and the anterior abdominal (Space of Retzius) approaches—i.e., Marshall-Marchetti operation. The surgical repair of urinary tract fistulae and the underlying surgical-physiologic principles involved are excellently described and illustrated. I would suggest, however, that in his next edition, the author devote more text and illustration to a description of the Schuchardt incision. It would be helpful also, I believe, to emphasize that the Latzko operation is designed primarily for fistulae at the apex of the vaginal vault where the uterus is absent, and that vaginal vault obliteration is the result and not the purpose of the operation. Uretero-intestinal anastomotic procedures as bladder substitutes are well described as are the physiologic-anatomical problems posed by them. No credit is given to the important contributions of Bricker to the use of ileal loop as a substitute bladder.

Chapters 13 to 15 concern proctology, minor ano-rectal procedures and the operation for posterior exenteration where cancer involves both bowel and generative tract. In the latter the author assumes that the reader is familiar with the radical abdomino-perineal procedure for cancer of the rectum. Likewise, the description of the perineal phase of the radical operation leaves much to be desired for the tyro who will have to consult some other surgical text, particularly when it comes to performing an accurate dissection of the ischio-rectal fossae and resection of the levator ani muscles under direct vision. Of course, it may be argued that this type of surgery is for the thoroughly initiated.

Various operations for benign disease of vagina, uterus and adnexa are well described. A discussion of malignant neoplasms is begun in Chapter 20, and the subsequent seven chapters cover this field—i.e.: theories, and chemical, radiation and surgical therapy of gynecologic cancer including the exenteration procedures and the varying methods used for management of permanently sectioned ureters.

I confess my lack of conviction for the need of the wide removal of skin over the inguino-femoral regions as advocated by the author in the operation for cancer of the vulva. In my limited experience the skin on the anterior aspect of the thigh is not where cancer recurs.

It is also interesting to note that, while the author gives considerable space to a discussion of the manner and sites of predilection for the spread of cervical cancer, he fails to mention the vagina as one of the common sites of recurrence in inadequately treated patients.

The remainder of the text, about 100 pages, is given over to injuries of gynecologic and obstetrical significance, and postoperative and operative complications including cardiac arrest. A description of abdominal incisions, hernias and intestinal surgery in relation to gynecology are interestingly described and followed by a number of other minutiae, not the least of which are retroperitoneal pelvic tumors and ectopic pregnancy.

Surgeons interested in gynecologic surgery and urology will find this a desirable addition to their libraries.

Karl H. Martzloff, M.D.

(Continued on page 260)

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(Continued from page 259)

THE RETICULAR FORMATION OF BRAIN STEM: ANATOMICAL ASPECTS AND FUNCTIONAL CORRELATIONS. By Alf Brodal, Anatomical Institute, University of Oslo, Norway. 87 pp. Illustrated. Price $3.00. Published by the William Ramsay Henderson Trust by Oliver and Boyd, Edinburgh and London; and Charles C Thomas, Springfield, Ill. 1957.

The reticular formation is barely known by its name to most of us. Even neurologists and neurosurgeons are relatively vague about its anatomy and physiology. The present volume, written by an anatomist, outlines its anatomic delineations in the brain stem and tries to correlate them with neurophysiologic findings of this area which have proven most resistive to the exploring neurophysiologist. Only the last 10 years have seen the major advances, thanks mainly to refined recording and stimulation techniques. The essence of this publication was presented in the spring of 1956 in Edinburgh as two lectures by Professor Brodal, head of the department of anatomy at the University of Oslo. The data presented demonstrate that the reticular formation of the brain stem is an extremely complex part of the central nervous system. Being an anatomist, the author was able to prove that the reticular formation is not a diffusely organized structure but is subdivided into several regions with different cell structure, fiber connections and intrinsic organization. To correlate these structures with certain definite functions has not always been possible. The function of the reticular formation, far from being fully understood, covers antagonists like facilitation and inhibition (of vital importance in the study of tremor, extrapyramidal movements, diseases like Parkinsonism), inspiration and expiration, blood pressure regulation, control of cortical activity, consciousness and sleep.

This volume, a survey of present day knowledge, is truly intended for use by specialists in this particular field of neuroanatomy and neurophysiology. For the average medical reader, including clinical



neurologists and neurosurgeons, this volume is—like its topic—far too complex for easy reading or perusal; it represents a compilation of the important papers in this field and an admirable effort to tie them together. To those of us who are rightly proud of the University of Washington School of Medicine, it should be pointed out that one of its faculty, Arthur Ward with his 1948 paper on the cingular gyurs, was one of the important contributors in the study of function of the reticular formation.

W. W. Klemperer, M.D.

FUN COMES FIRST FOR BLIND SLOW LEARNERS. By Mildred Blake Huffman, B.E., M.A., Primary Teacher, California School for the Blind, Berkeley, Calif.; with a Foreword by Samuel A. Kirk, Ph.D., Director, Institute for Research on Exceptional Children, University of Illinois, Urbana, Ill. 157 pp. Illustrated. Price $5.00. Charles C Thomas, Springfield, Ill. 1957.

This small volume is neither a textbook nor one to be read as light amusement. It relates the author's experience and approach in teaching children who are not only blind but mentally retarded and, due to this, maladjusted to their handicap and surroundings.

Major portion of the book is taken up by one chapter entitled "Growth through Interest and Experience" in which the author tells in some detail how interest is stimulated in the various educational processes, mostly through games and carefully planned incidents. The most important point brought out in the book is that these children, in spite of their many handicaps, are more like normal children than unlike them.

This book is well written, easily read and should be of interest to anyone who has contact with blind or retarded children—thus parents, teachers and doctors.

Robert C. Laughlin, M.D.

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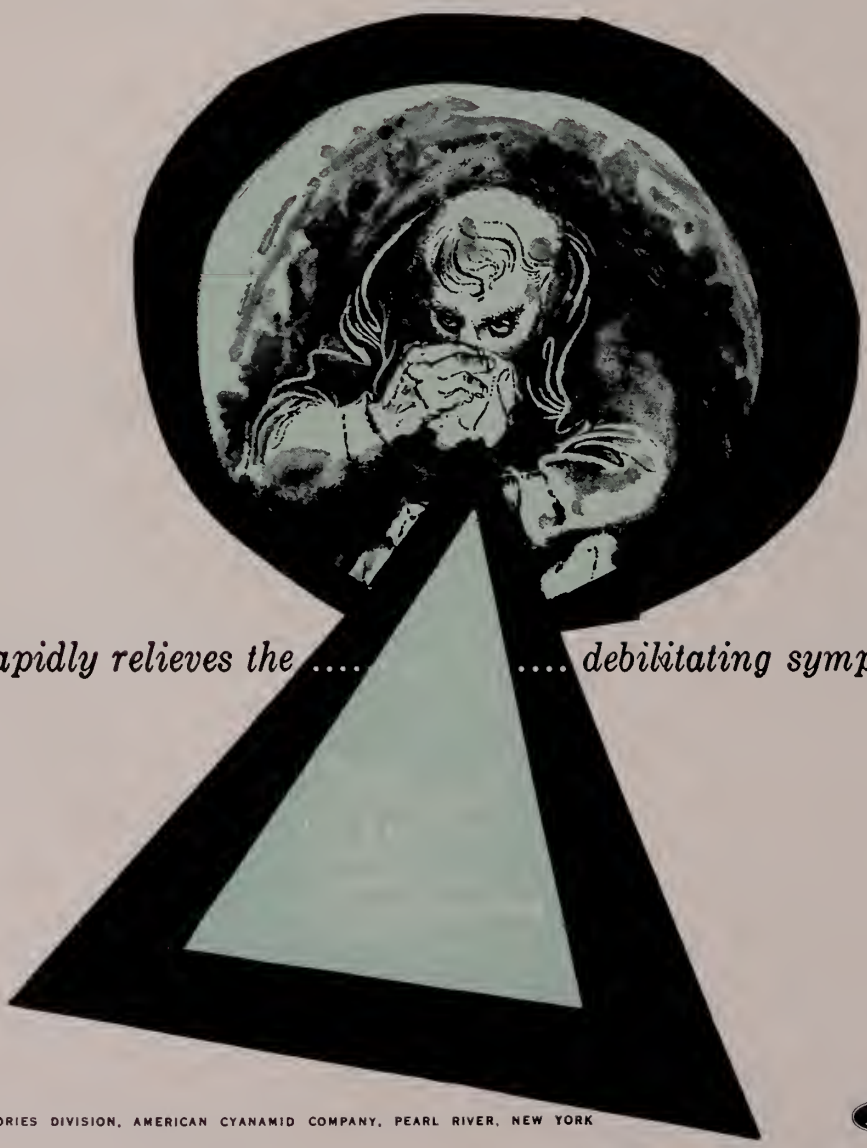
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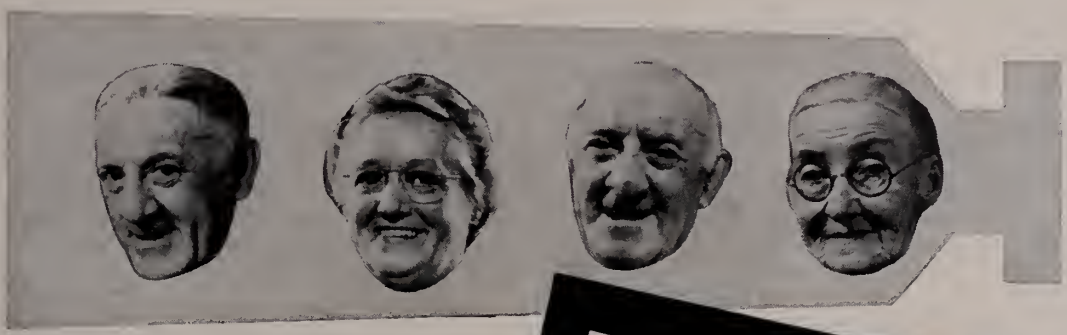
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Pacific Northwest Obstetrical and Gynecological Association .. Seattle
June 30-July 2, 1958
Pres., P. Rollins, Seattle Sec., C. L. Fearl, Portland

Pacific Northwest Society of Pathologists .... May 2-3, 1958, Portland
Pres., H. E. Taylor, Vancouver, B.C. Sec., J. E. Hill, Spokane

Pacific Northwest Society of Plastic and Reconstructive Surgery — May 23-24, 1958—Tacoma
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OREGON

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Oregon Radiological Society—Second Wednesday through school year—University Club, Portland
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Pres., J. P. Whittemore Sec., L. H. Smith

Portland Surgical Society ..... May 9, 10, 1958
Pres., Russell Johnsrud Sec., C. G. Peterson

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Seattle Gynecological Society ..... Third Wednesday (except June, July, Aug., Dec., Feb.)
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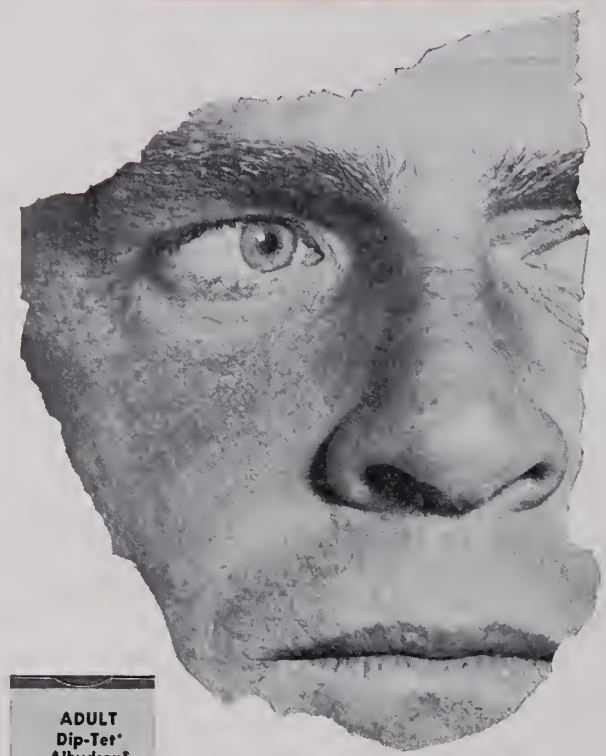
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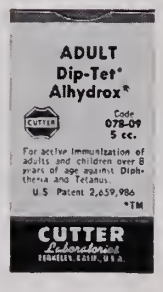
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[1]Edsall, Geoffrey: *Am. Jour. Public Health 42:393-400, 1952.*
[2]Long, E. P. and Sartwell, P. E.: *Bull. U.S. Army M. Dept. 7:371-385, 1947.*
[3]Editorial, *New England Jour. of Med. 237:411-413, 1947.*
[4]Edsall, Geoffrey; Altman, James S.; and Gaspar, Andrew J.: *Am. Jour. Public Health 44:1537-1545, 1954.*

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MARCH, 1958

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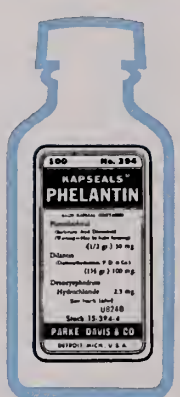


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1. Zimmerman, F. T., and Burgemeister, B.: *Arch. Neurol. & Psychiat.* 72:720, 1954.
2. Zimmerman, F. T., and Burgemeister, B.: J.A.M.A. 157:1194, 1955.
3. Zimmerman, F. T.: *Arch. Neurol. & Psychiat.* 76:65, 1956.

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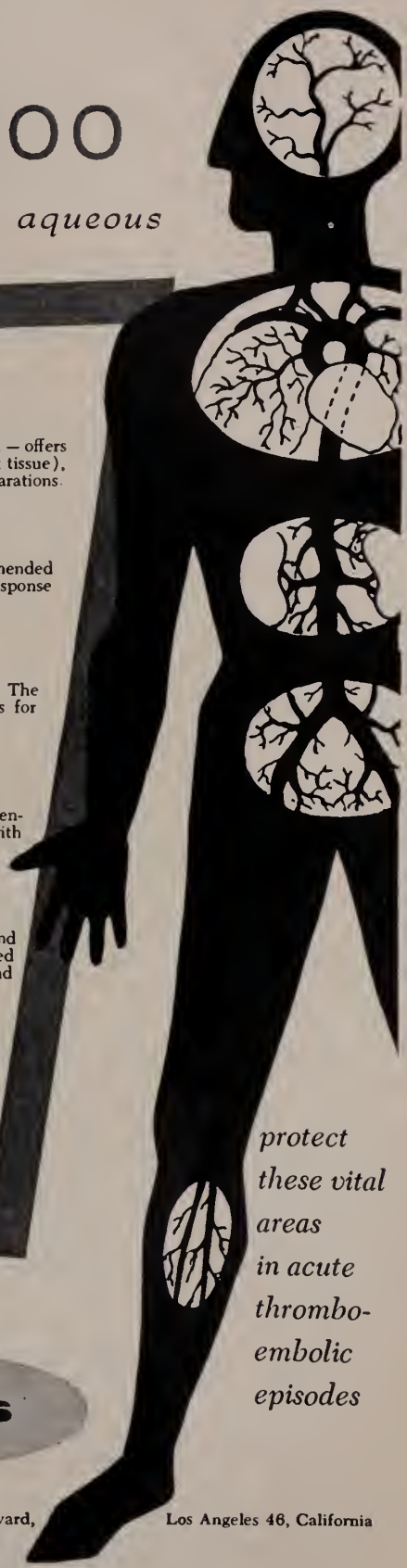
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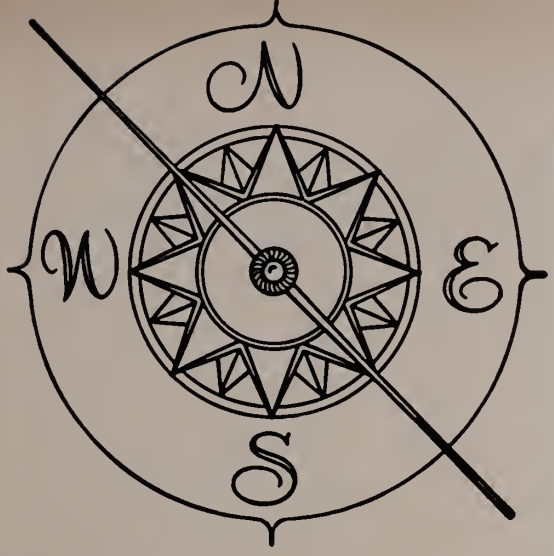
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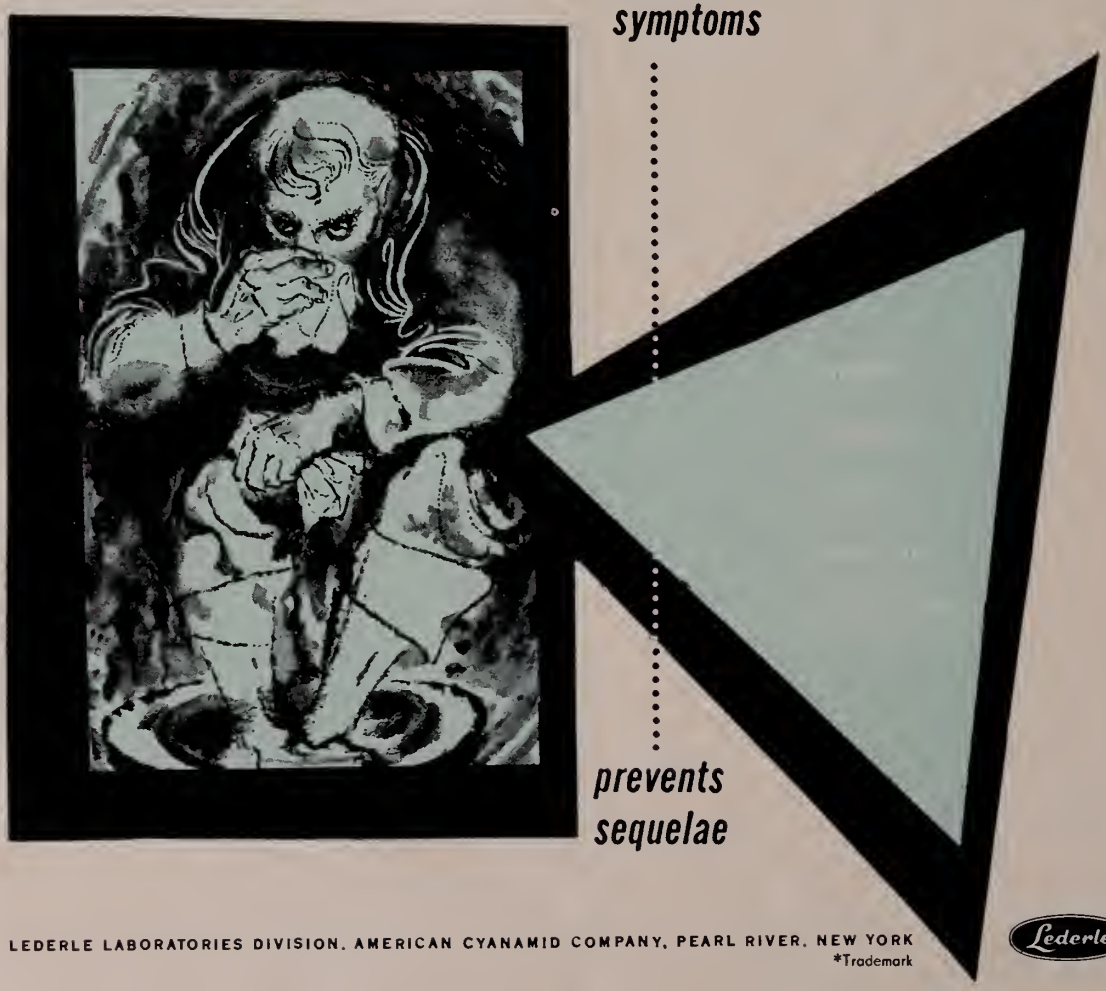
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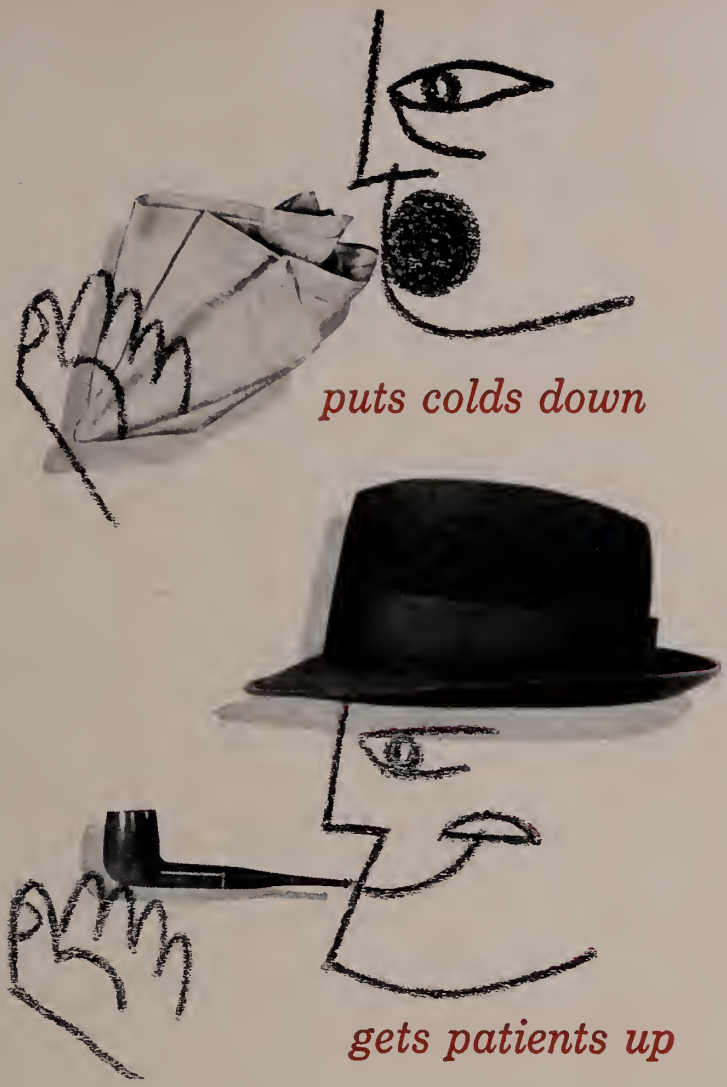
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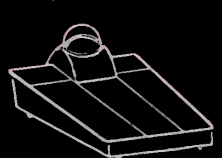
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1. Sc. Exhibit, A.M.A. Meeting, Dec. 2-6, 1957.
2. Sc. Exhibit, Mich. State Med. Meeting, Sept. 25-27, 1957.
3. Gadek, R. J.: Report 912:1957.
4. Sc. Exhibit, N. Y. State Med. Meeting, Feb. 18-21, 1957.

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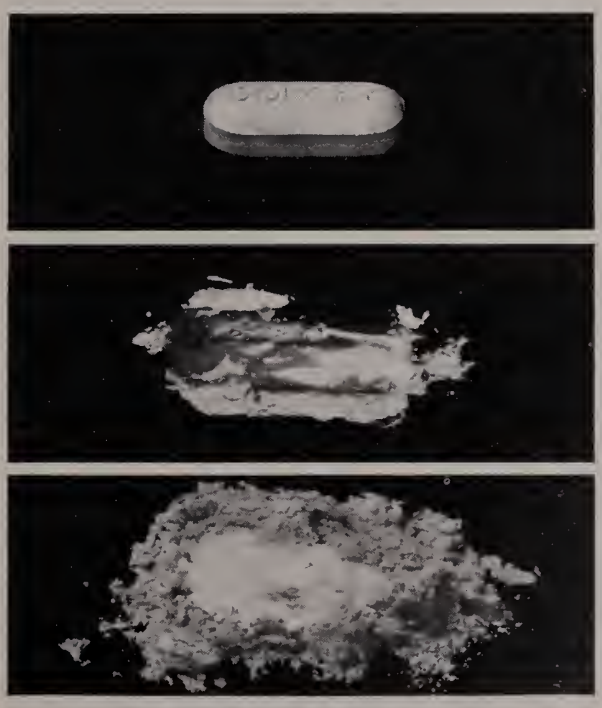


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References: 1. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (May 29) 1223-1227, 1954. 2. ibid. (April 13) 847-850, 1957. 3. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 4. Lewis, L., *et al.*: Ann. Int. Med. *39*:116, 1953. 5. Demartini, F., *et al.*: J.A.M.A. *158*:1505, 1955. 6. Segaloff, A.: Ann. Allergy *12*:565, 1954. 7. Kern, R. A.: Am. J. M. Sc. *233*:430, 1957.

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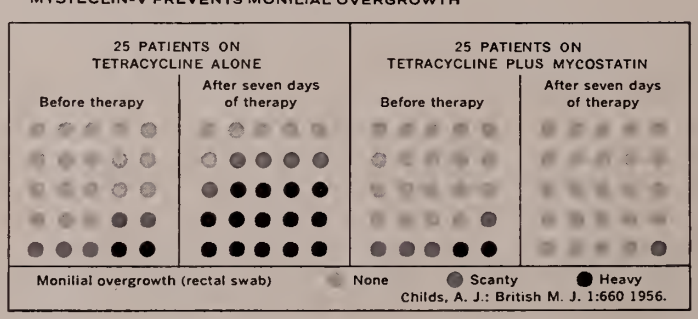
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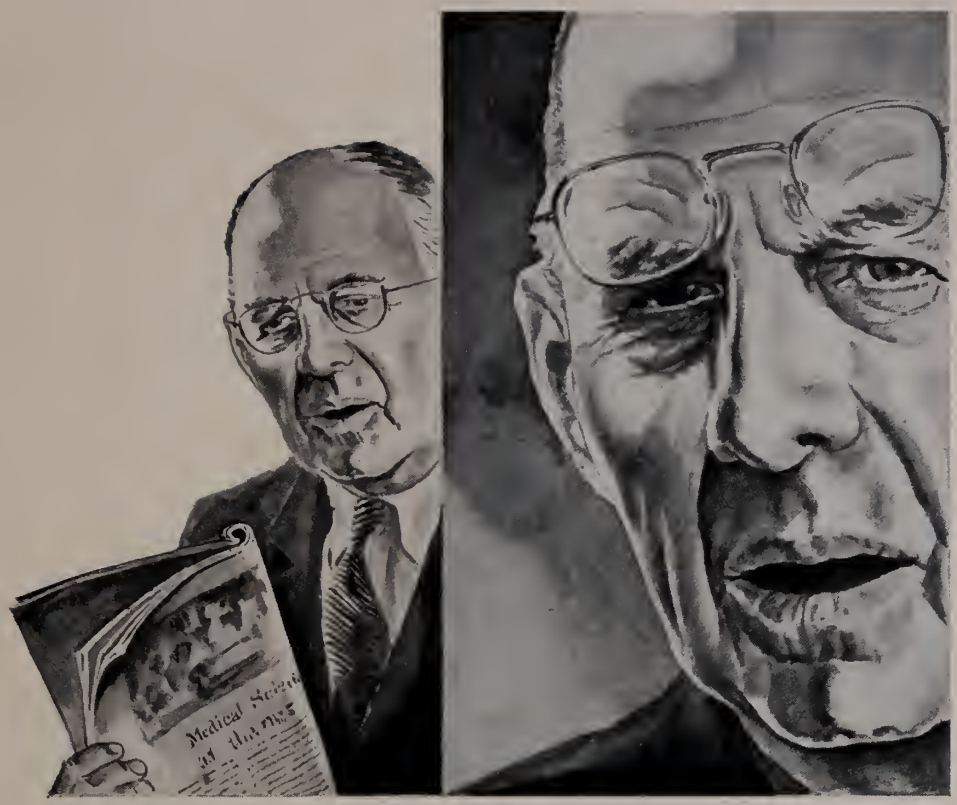
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VOLUME 57
NUMBER 3
MARCH, 1958

EDITORIAL

Neurosis and Creativity

Several months ago the writer of a letter published on the correspondence page of the *Saturday Review* expressed thanks to the Deity for neurotics. He seemed to be convinced that they were responsible for most human progress, not only in art and literature but in almost every field of endeavor. It has remained for *Guy's Hospital Gazette* to publish an inquiry into the dependence of creativity on neurosis. J. S. Cameron, author of an article Neurosis and the Arts in the December 21 issue of that journal, does not arrive at any very definite conclusions but asks his readers to treat the word *neurotic* with a little more respect. It may be connected with man's highest function—creation.

He notes that the relationship of creativity to inner turmoil may be incidental, parallel, sequential or antagonistic. Incidental appearance of the two phenomena he throws out since stigmata of instability appear too frequently in the works of literature geniuses to lead one to theory of chance. The idea of parallelism is not given much credence since it would need to relie on the presence of a condition providing both neurosis and creation. Some feel that neurosis is a handicap but Cameron denies this, stating that neurosis may be a source of great power. Apparently he leans toward the sequential theory.

Artistic drive may be irrational in the same manner, and possibly for the same reasons, that neurotic behavior seems irrational. In the neurotic, a simple danger signal may evoke an emotion quite out of proportion to the stimulus which triggered it. Source of energy for the outburst may be, and usually is, unknown to the victim as well as to his observers. Hence the appearance of irrationality: "The artistic drive is likewise irrational. The artist is seeking a solution of difficulties never resolved, seeking hopelessly and yet with enormous vigor; a vast unthinking drive to solve just one little problem of the human predicament. This holds with artists of great breadth and facility of expression, and equally for those unfortunate inarticulates who succeed only in being pitiable."

Proust, whom Cameron describes as one of the great neurotics of literature, knew the source of his own ability and indicated that only those who suffered could produce. Cameron recognizes that suffering is not confined to neurotics but he realizes that they undoubtedly suffer more deeply and more constantly than those well integrated. Thus they examine themselves and their surroundings with senses rendered more acute by their tortures.

Freud could hardly be left out of the discussion. He is quoted on the origin of neuroses, "It seems that all neuroses (except traumatic neuroses) are only acquired in childhood up to the age of six." Cameron feels that this is an important observation since great creative artists go right on creating until death. Advanced age does not diminish their ability. Although some might attribute productivity to sexual drive or the drive for power, he notes that artistic drive continues long after those forces have usually

burned out. Thus it must stem from an influence planted at an early age to continue through all of life.

The question of normality of neurosis is raised. Some believe that everyone is neurotic in some way. Thus there is a problem in determining how much neurosis may be considered normal and what amount renders the sufferer abnormal. Cameron avoids drawing a precise line between the two. Perhaps, in order not to aggravate our own neuroses, it is better just to leave it that way. •

Wound Infection

One person on the surgical staff of each hospital should be made responsible for careful study of wounds, according to Meleney and Foman, in *The American Surgeon* for October 1957. They make this as one of many recommendations after studying wound infections at a Miami, Florida, hospital. The staff member assigned would obtain information on the progress of wound healing of every surgical patient, the type and severity of all complications, the bacteriologic studies and the measures taken to control infection. Regular reports would be made to the surgical staff.

Unless such studies are made, no one knows his own incidence of infected wounds or the importance of the hospital problem. Impressions are not enough.

Surgeons should be chagrined that, 90 years after Lister pointed the way to control of surgical infections, wounds still become infected because of breaks in technique. Meleney and Foman found a surprisingly high incidence of infections and many which could have been prevented. As might be expected, highest rate was in patients subjected to contamination before admission to the hospital. In these patients, 23.9 per cent of the wounds became infected. More surprising is the figure for wounds infected at the time of operation. It was 22.5 per cent. More disturbing is the fact that wounds in 10 per cent of clean cases became infected.

Their studies of the time and manner of introduction of organisms in the clean cases revealed facts which should be significant to those responsible for conduct of affairs in the surgical suite. Contamination occurred in the operating room in one-fourth of the cases. In another quarter of the cases it could have occurred either in the operating room or at the time of subsequent dressings. In another quarter it could have happened in the operating room or organisms could have been carried to the wound by lymphatics draining nearby infected areas. The surgical suite escaped implication in only one-fourth of infected wounds. These were determined to have been contaminated at the time of postoperative change of dressings.

Contamination at the time of operation was judged to have come from the intestinal tract in some cases and to have resulted from organisms dropping into the wounds in others. Plates exposed in operating rooms indicated much greater air contamination during the time the room was in use than when it was idle. Nose and throat cultures revealed that 50 per cent of operating room personnel were carriers of pathogenic organisms. Some surgeons failed to cover the mouth and nose completely. Many of the masks used were considered inadequate. Flagrant breaks in sterile technique were not observed although there were some deficiencies in scrubbing methods used by some individuals.

Errors were observed much more frequently when dressing methods were studied. Exudates from infected wounds were allowed to seep through dressings permitting spread of organisms. Masks and gloves were not worn frequently by those changing dressings and the dressing materials themselves were often applied with hands rather than with sterile instruments. There was evidence of carelessness in handling dressing materials, needles, instruments and syringes.

The authors found that the laboratory was not always used to determine type and sensitivity of organisms present and that antibiotics were not always used on the basis of specific informa-

tion. They urged prompt bacteriologic study of every wound showing infection or known to have been contaminated, followed by adequate use of the indicated antibiotic.

They recommend local use of neomycin and bacitracin, which are synergistic, in wounds known to be contaminated or in which contamination is observed, while awaiting precise information from the laboratory. Polymixin is suggested as an addition in burns since pseudomonas organisms are frequent contaminators.

Meleney and Foman urge adoption of stringent rules for the surgical suite. No person should be permitted to enter an operating room without having mouth and nose covered with an adequate mask and without proper cover for shoes. Helmets are preferred to caps. Masks should be four-ply with impermeable lining of cotton, flannel or plastic. All persons in the operating room should have nose and mouth covered at all times. This regulation should include the anesthetist. Masks should not be removed by anyone at any time while in the operating room. Entrance to the room should be through the scrubroom door. Doorway to the corridor should be used only for movement of the patient.

The surgical staff should be aroused to the need for tightening up all along the line. "Sterile conscience" and "sterile sense" should be kept in mind. Careful scrubbing, adequate masking, proper use of operating room clothing, rigid adherence to operating room discipline, use of masks and gloves in dressing open wounds, prompt use of antibiotics and prompt bacteriologic studies on wounds already contaminated or those infected while the patient is in the hospital—all contribute to reduction in the incidence of wound infection which is still unnecessarily high. •

Understanding

It has been fashionable, in recent years, to lament the fact that the physician is no longer accorded the adulation he formerly received. The doctor was once the most respected citizen in any community. He might have known little but he understood much. Today the doctor knows a great deal more but it may well be that he understands less. And it may well be also that the respect he is given stems more from his understanding of humans than from his knowledge of the many sciences which constitute medicine today.

Current popularity of psychiatric treatment, the astounding demand for tranquilizing drugs and the national hysteria which follows disturbing news—all indicate great unmet human needs. They cannot be met by an analysis of a battery of laboratory tests followed by prescription for the latest chemical miracle. If met by medicine at all, they must be met by the understanding which was the art of the highly respected physician of former yeras.

Levitan, in his article in this issue, emphasizes the inadequacy of medical practice which approaches the patient on the basis of microscopy, microbiology, pharmacology and chemistry. It is obvious that his knowledge, like that of all present day physicians, encompasses these things and many more. But it is also obvious that he is attempting to go beyond the sharp boundaries of these sciences. It is clear that he is trying to understand and meet the needs of his patients.

Levitan's article is more than just a listing of a few diseases that may not exist. It is more than a rebellion against too much science in medicine. It is more than condemnation of the physician who treats because he obtains profit from treating. What he has done is to point out that science has not yet developed far enough to be able to weigh in the variables of personal reaction. The test tubes and the colorimiters cannot fathom the human mind or determine just how it is disturbing the body which bears it. Those are processes which, so far at least, need another human mind, trained to understand as well as to know.

Restoration of the physician to his former position of respect will come when he not only knows but also understands. •



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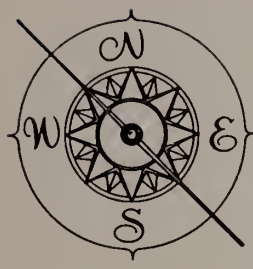
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ORIGINAL ARTICLES

Hormones and Cancer

SIR STANFORD CADE, K.B.E., C.B.
LONDON, ENGLAND

Treatment of cancers of the breast and prostate is an indirect attack aimed at creation of a physiologic state inimical to their growth. Adrenalectomy and hypophysectomy are the only methods available offering possibility of regression of disseminated cancer otherwise untreatable and beyond hope. Usefulness of the method is limited by hormone-dependency of the tumour.

The most remarkable and far reaching advance in the knowledge of the natural history of cancer is the observation that there exists a relationship between certain cancers and the hormonal state of the patient. This observation suggests that cancer is not always an autonomous state, independent of normal physiologic processes. In practice it has been observed that a modification of the hormonal state of the patient may lead to a regression of widespread disseminated tumours.

This hormonal relationship applies only to cancer of the breast and prostate. There is no evidence so far that any other cancer can be influenced by a change in the hormonal environment.

Experimentally it has been shown in animals that cancer can be induced by hormones and equally that cancer can be made to regress by alteration of hormone secretions. In 1932 Lacassagne succeeded in producing mammary cancer in male mice by repeated injections of oestrogens. This experimental finding has been confirmed by many workers since. Animal experiments have also shown that removal of the ovaries reduces the incidence of spontaneous development of breast cancer in susceptible strains and that the incidence of mammary cancer in mice can be increased by oestrogens and also by transplantation of the anterior hypophysis.

The chemical structure of naturally occurring oestrogens was determined in 1930 and the synthetic production of oestrogens was achieved a few years later. Oestrogens were detected in normal males, the source being the testis. The urine of stallions, testicular tumours in dogs, milk, eggs and other articles of diet were found to be a source of oestrogens.

The first oophorectomy for advanced breast cancer was done by George Beatson in 1896. It has since been repeatedly shown that removal of the ovaries may prove a restraining influence on the progress of breast cancer. X-ray induced menopause following irradiation of the ovaries has also been frequently practised, but surgical castration is more rapid, more complete and more constant in its effects. It is also reported that the incidence of cancer of the breast is rarer in castrated women than in the normal.

The hormonal treatment of prostatic cancer consists in the withdrawal of androgens by cas-

Sommer Memorial Lecture presented at the 83rd Annual Session of Oregon State Medical Society, Portland, Oregon, on October 4, 1957.



Fig. 1. Efect of androgen on osteolytic metastasis from breast cancer.

tration or the administration of oestrogens. The hormonal eontrol of mammary cancer is more complex, sometimes apparently irrational and always unpredictable in its effects.

The methods of hormone therapy which follow oophorectomy are: Androgen therapy, oestrogen therapy, adrenalectomy, hypophysectomy and cortisone administration.

Androgen Therapy

The effect of male hormones in breast cancer was first published in 1939 by Ulrich and by Loeser. Popular interest in this subject was delayed by the war and by the scarcity of synthetic male hormones. In 1946 Adair of the Memorial Hospital, New York, published his series of androgen-treated breast cancer and this method of treatment became popular. In the past 17 years there has accumulated a considerable amount of evidence as to the value of androgen therapy.

The effect of testosterone in many eases of breast cancer, about 30 per cent, is remarkable. Symptomatic relief of pain is dramatic in the successful cases; recalcification of osteolytic metastases and shrinkage of visceral metastases in the liver, lungs, and soft tissues is equally impressive. Radiologically occult skeletal lesions become evident by an increased density of bone.

The improvement is temporary, lasting between 6 to 18 months, but in a few cases prolonged survival up to 8 years has been achieved in the older age groups. Yet the method of androgen therapy remains the least desirable. The anabolic effects produce symptomatic improvement: increased appetite, improved blood count, gain in weight and sense of well being. Yet the side effects often outweigh the benefits. Virilism varies from patient to patient and does not always correspond with the dose. Deepening of the voice, hirsutism, eroticism, baldness, amenorrhoea and muscular hypertrophy transform the patient into a male caricature of herself.

The electrolyte balance may be upset by sodium and water retention and any preexisting oedema or cardiac disease and pleural effusion

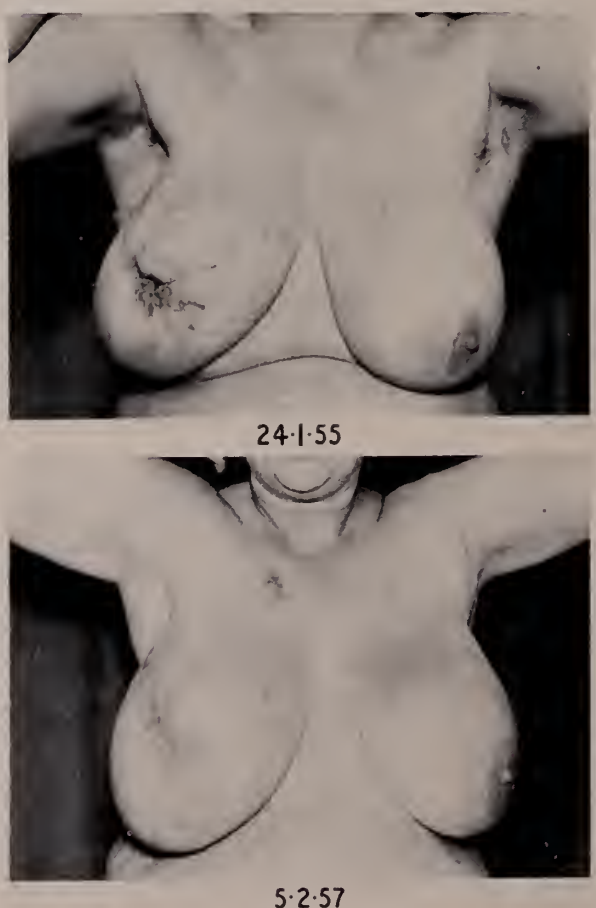


Fig. 2. Bilateral cancer of the breast. Before and 2 years after bilateral adrenalectomy and oophorectomy. This patient remains well to date, 3 years after adrenalectomy.



Fig. 3. Effect of oestrogens on local recurrence of breast cancer.

or ascites are aggravated. The most serious side effect is hypercalcaemia and renal failure which may rapidly prove fatal.

On balance, the indications for androgen therapy are few. In pre-menopausal women, surgical or radiologic castration should be tried first. In the older age group, it is indicated as a test treatment in cases considered for adrenalectomy If, however, the response to treatment is favourable and the side effects moderate, treatment by androgens is continued. The average benefit is of 6 to 18 months.

Oestrogen Therapy

The first trial of oestrogens in mammary cancer was made by Haddow and his co-workers, and the results were published in 1944. The treatment of breast cancer by oestrogens is empirical and the mode of action is unknown and in fact seems paradoxical if the beneficial effect of androgens is considered to be anti-oestrogenic. It is possible that the oestrogen effect is due to pituitary suppression.

The effects are well-known: ulcerating primary tumours, local postoperative recurrences, satellite nodules regress and sometimes disappear completely. The effects on skeletal and visceral metastases are less frequently obtained and take longer to manifest themselves than after androgens.

The use of oestrogens is now usually reserved for the older age group, at least 5 years post-menopausal. There are, however, recorded cases of great improvement in pre-menopausal women. Like androgens, oestrogens often produce symptomatic relief of pain and subjective improvement. The side effects are different and less distressing than those following androgens: vaginal bleeding, pigmentation of areolae, axillae and vulva; nausea and vomiting and occasionally hypercalcaemia and renal failure.

The indications for oestrogens are cancer of the breast in all stages in the very old—over 75 years of age—and as the first hormonal trial in disseminated cancer in post-menopausal women. It is contraindicated in patients whose metastases have regressed following oophorectomy. In all cases oestrogens should in the first instance be tried cautiously, as aggravation of disease may result in the hormone-dependent patients. This aggravation by oestrogens has been used by Emerson and Jessiman as a test for hormone-dependency.

The average period of improvement with oestrogens is similar to that with androgens, 6 to 18 months. The percentage of patients who respond

to oestrogens increases with the age of the patient. The longer after the menopause, the more likely the patient is to respond to treatment. The uterine bleeding may be controlled by increasing the dose of oestrogen. Withdrawal bleeding is well-known. If bleeding is severe, progesterone should be given by intramuscular injection for a few days.

Corticoid Therapy

Attempts to produce tumour regression by the use of cortisone, hydrocortisone and prednisone have been made in many centres. Large doses of cortisone, 200 mg. daily, have been tried by Pearson and his colleagues at the Memorial Centre, New York. Objective remission was obtained in about 30 to 50 per cent of patients but was of very short duration, only 3 months. Smaller doses, 50 to 100 mg. daily of cortisone, were found by others to be equally effective. Prednisone in 10 to 25 mg. daily by mouth is preferable as it causes less sodium retention and less potassium loss. The effect of these corticoids may be due to their suppressive action on the adrenals or on the pituitary. There is no evidence of any direct tumour suppressive action but their palliative value is considerable. Their main indication is in cases of hypercalcaemia, either spontaneous or as the result of androgen or oestrogen therapy.



Fig. 4. Skeletal pelvic metastases from breast cancer. Before and 2 years 3 months after adrenalectomy and oophorectomy. This patient remains well to date, 4 years and 2 months after adrenalectomy.

The favourable response to cortisone or prednisone, like the activation effect of oestrogens or androgens, is considered to be an indication of hormone-dependency and may be used as a test for suitability for adrenalectomy. It is not recommended as the initial treatment except in very critically ill patients.

S. G. Taylor of the Presbyterian Hospital in Chicago found that corticoids are of value in the control of neurologic symptoms due to cerebral metastases as well as for replacement therapy and as a stimulant of the bone marrow, and in cases of radiation pneumonitis. Although the use of cortisone and prednisone is not comparable to that of other hormones, it is of considerable palliative value and relieves discomfort from the inflammatory reaction around the primary tumour, in lymphoedema and in jaundice from hepatic involvement. But its main value is in hypercalcaemia from extensive bone metastases and in intracranial deposits. Prolonged administration of the corticoids leads to the well-known side effects, such as Cushing's syndrome, moon face, slight hirsutism and acne. The most serious effect is the masking of infections and patients may develop an infection in the lungs or pleura without premonitory symptoms. Adrenal insufficiency may also result from prolonged corticoid medication.

Adrenalectomy

Charles Huggins (1945) was the first to suggest and to practise bilateral adrenalectomy, even before substitution therapy by cortisone became available. His work on the physiology of the prostate, leading to his observations on the effect of hormonal influence on prostatic carcinoma, attracted him to the study of the hormonal effects on breast cancer. Huggins' conception of



Fig. 5. Pleural and mediastinal metastases from breast cancer. Before and 3 months after bilateral adrenalectomy and oophorectomy.

hormone-dependency of breast cancer is based on two principles: (1) Cancer is not necessarily autonomous and self-perpetuating. Some cancers, such as prostatic and mammary, retain the properties of the normal prototype cell and function like these cells. Their activity depends upon hormonal support. (2) Cancer in certain sites can be sustained by normal hormonal influences in normal or even subnormal quantities. His experimental work and his clear clinical observations revealed the following four points:

(1) Gonadectomy is followed by compensatory hypertrophy of the adrenals and increased adrenocortical function.
(2) In men, the excretion of 17-ketosteroids is raised after castration and eliminated after adrenalectomy.
(3) In women, oestrogen continues to be excreted after oophorectomy and is often, although not always, eliminated by adrenalectomy.
(4) Ovarian endocrine function continues after the menopause.

These observations translated into clinical applications are the rationale of bilateral adrenalectomy and oophorectomy, which is the elimination of all or most known sources of sex steroids which can influence the growth of mammary cancer and so create a physiologic environment poor in steroids and inimical to the sustenance of cancer.

My own series of bilateral adrenalectomy for disseminated breast cancer now totals 180 patients and covers a period of five years. The mortality of the operation has diminished with increased experience and is now negligible. The adrenalectomised patients adequately maintained on substitution therapy are not incapacitated and are capable of leading a near-normal life. The effect of adrenalectomy is assessed by subjective and objective improvement. In widely disseminated cancer in a proportion of patients, such improvement has never been achieved before by any other form of treatment and has only been achieved since by hypophysectomy.

The effects of adrenalectomy can be summarized as follows:

A proportion of patients do not respond to adrenalectomy; they are the hormone independent tumours; their failure to respond is immediate and complete. The progress of the disease is not affected; they account for about 50 per cent of patients. When improvement is achieved, 58 per cent of patients show subjective improvement and 40 per cent objective improvement.

Subjective improvement is measured by the relief of pain, the return to an ambulatory state, an increased sense of well being, improved appe-

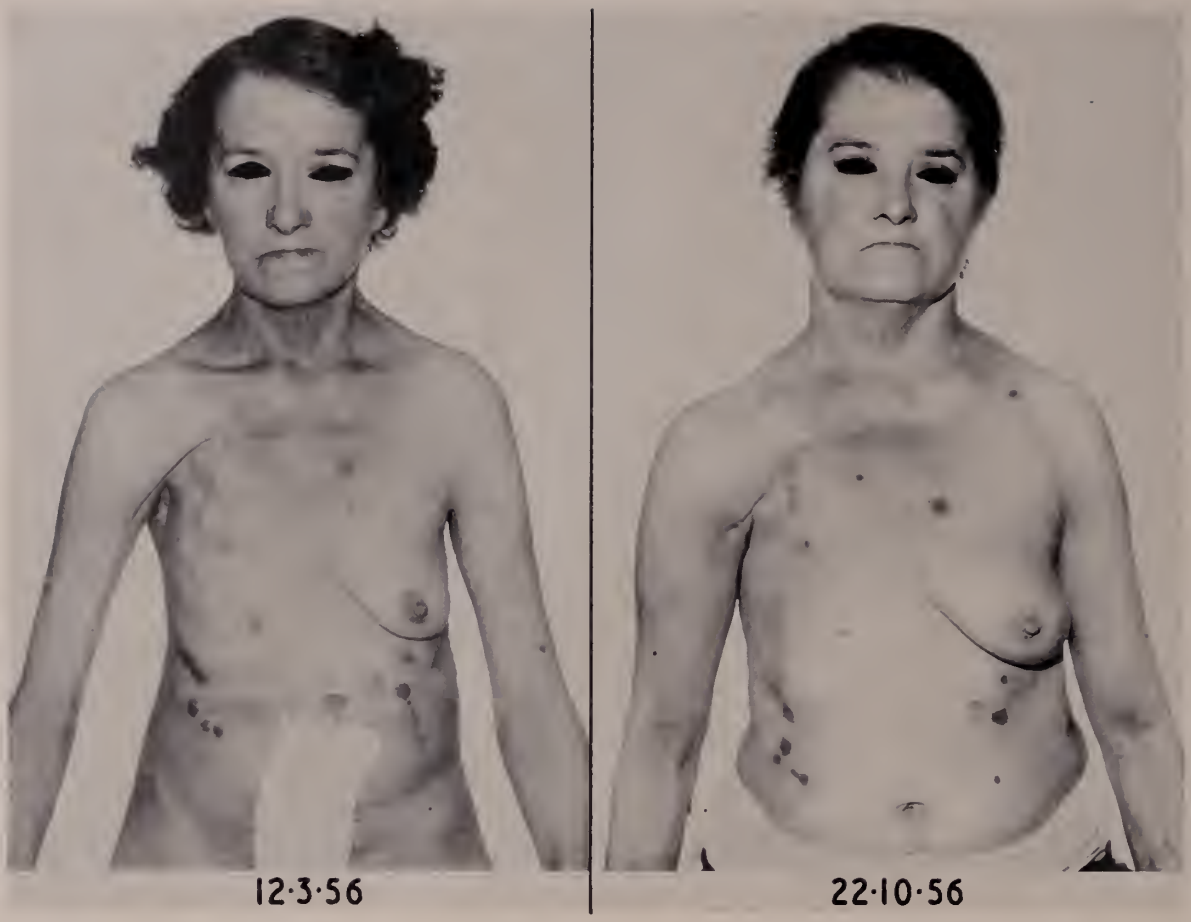


Fig. 6. Extensive skeletal metastases involving the entire skeleton. To illustrate the alteration in the patient's appearance and gain in weight 7 months after adrenalectomy. There was radiologic evidence of healing of all the bone lesions.

tite and a capacity to resume a near-normal existence including work.

Objective improvement is assessed by clinical and radiologic regression of lesions, union of pathologic fractures, recalcification of osteolytic deposits, disappearance or shrinkage of visceral metastases in the lungs, pleura, liver and eye. These favourable effects of adrenalectomy have been observed by Huggins and since then by many other surgeons. A series of cases was published by Pyrah and Smiddy from Leeds in 1954, by Pearson, Randall and others from the Memorial Centre and Sloane Kettering Institute in New York (1957) and many others. My own series (Cade, S., 1954, 1955, 1957) fully supports Huggins' original observations.

Tests to determine beforehand if any given patient is likely to benefit from adrenalectomy or not are still in the preliminary stages. Jessiman and Emerson suggest that aggravation of the disease by oestrogen, improvement by cortisone and estimation of the effects of oestrogen on calcium excretion in osteolytic lesions are of value. Assessment of the effects of previous treatment by androgens or oestrogens is of interest.

Aggravation of the disease by hormones is significant and indicates hormone-dependence, but a good response to hormones has proved a more favourable prognostic feature than no response. Neither age, nor histologic type of mammary cancer, rate of growth or extent of the disease are of prognostic significance.

The position to-day is that adrenalectomy is the last resort in disseminated cancer of the breast and that there are indications which suggest that earlier adrenalectomy is justifiable. The question, whether the alternative of hypophysectomy is preferable or not, cannot as yet be answered definitely. There are, however, some indications that further remissions of the disease can be obtained by hypophysectomy in previously adrenalectomised patients and I am inform-

ed by Huggins that the reverse is also true—that previously hypophysectomised patients have been known to obtain remissions after adrenalectomy.

Hypophysectomy

In 1951, R. Luft and H. Olivecrona of Stockholm began their studies of the effects of hypophysectomy on metastatic breast cancer. Their purpose was to achieve a complete elimination of steroid hormones. Hypophysectomy results in the elimination of the function of the adrenals, accessory adrenals, ovaries, thyroid and of the growth hormone (somatotrophic hormone) which has been shown to be of some importance in the control of cancer. By January 1956 Luft and Olivecrona had studied 75 hypophysectomised patients. Pearson and his colleagues (1954, 1956) at the Memorial Centre in New York reported 41 patients hypophysectomised for breast cancer with 50 per cent remission (in 90 per cent of patients). M. C. Falconer and his colleagues at Guy's, Radley Smith at the Royal Free Hospital, London, and many others have now shown that regression of disseminated breast cancer can be achieved by hypophysectomy in a similar manner to that obtained by adrenalectomy.

Other forms of pituitary suppression by radiation have been tried. A. P. M. Forrest and D. A. Brown in Glasgow described an ingenious method of interstitial radiation of the hypophysis by the intranasal route. Radon seeds and radioactive gold grains as a source of gamma radiation, and yttrium as a β emitter have been tried. John H. Lawrence and his co-workers in Berkeley, California, used the 184-inch cyclotron as a source of proton radiation to destroy the pituitary.

All these methods indicate that destruction of the pituitary is followed by inactivation of the thyroid, adrenals, ovaries and suppression of the growth hormone. The effects of hypophysectomy on disseminated breast cancer are similar to those of adrenalectomy, and regression of disseminated lesions can be achieved.

In the series of patients hypophysectomised by Olivecrona, 54 per cent showed subjective remission. Regression of skeletal, pleural, pulmonary and lymph node metastases was achieved. Average period of remission was 17 months. Hypophysectomy has also produced further remission in patients previously adrenalectomised. It is at present too early to speak with certainty of the comparative value of adrenalectomy and hypophysectomy.

Summary and Conclusions

The hormonal treatment of cancer of the breast and prostate is an indirect attack aiming at the formation of a physiologic state inimical to the growth of the tumour. By altering the internal carcinogenic environment, treatment can be effective regardless of the site, extent and dissemination of metastatic lesions. The usefulness of the method is limited at present by the hormone-dependency of the tumour and not by the particular site or even the extent of the lesions. It is the greatest advance yet in the treatment of cancer although much more remains to be done. Many questions remain unanswered, wrapped in the mystery of the biology of cancer. Why are some cancers hormonally dependent and others not? What causes the reactivation of lesions after periods of regression? Why are the results in prostatic cancer inferior to those in breast cancer? The chemical destruction of the adrenals and hypophysis may one day replace surgical ablation of the adrenals and the hypophysis, but as yet no such chemical compound is available.

It remains a fact that adrenalectomy and hypophysectomy are the only available methods which in a proportion of patients offer a possibility of regression of disseminated cancer otherwise untreatable and beyond hope. •

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Inguinal Hernia

Part II. Surgical Technique

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SPOKANE, WASHINGTON

Last month nonoperative principles of inguinal hernia were presented. It was pointed out that the death rate from the complications of inguinal hernia almost equals the death rate from peptic ulceration. The anatomy of the inguinal region was outlined, stress being laid on the fact that the primary material of repair is not the "conjoined tendon," but a fascial tissue representing a fusion of transversalis fascia with the caudal extension of transversus abdominus, this fused tissue being conveniently termed "transversalis fascia." About 50 per cent of recurrences were noted to occur through Hesselbach's area, the major share of these near the pubic tubercle. The causes of direct recurrent hernias are primarily failure to use the transversalis fascia, use of absorbable sutures, or excessive suture line tension. Indirect recurrences are undoubtedly due to failure to recognize an indirect sac, to narrow the internal ring, or to minimize cord bulk. Recurrence rates of 3 per cent or less are realized if surgery is executed with due regard for basic anatomy.

Surgical technique for the usual adult inguinal hernia is the subject of this paper. No thought is entertained of originality for many of the steps to be described. The operative technique is a condensation of what has seemed worth-while in the techniques of many surgeons with whom I have worked, personal adaptations, of course, being introduced at various points in the procedure.

The Dissection

Incision through a transverse skin line of Langer provides adequate exposure, a less painful wound, and a cosmetically better scar. The external ring is defined, and a finger passed through it, and then pressed laterally under external oblique aponeurosis. This usually separates the ilio-inguinal nerve from external oblique aponeurosis. An opened dissecting scissor is pressed along the same course, its under blade being visualized through external oblique to insure against injury to the adjacent nerve. The external oblique is usually opened more widely than necessary; a 2 inch incision is adequate. (See figures 1, 2.)

The cord and ilio-inguinal nerve are picked up as one structure as the index finger is passed firmly between them and the pubic tubercle. If care is not taken, the external spermatic vein is frequently ruptured at this point. It is found at the internal ring just medial to the bulk of the cord and has little ability to stretch, acting as a taut band to maximize the internal ring circumference. It is most prudent to clamp, cut and ligate the vein at the outset.

Cord lipomas or fat bodies should be removed to a level deep to the internal ring, ligating the base of each. This minimizes the cord bulk, and often makes readily apparent, if present, the indirect sac.

Treatment of the Sac

If an indirect sac is found, it is highly important, having opened it, to make a finger exploration of Hesselbach's area for a direct, and of the femoral ring for a femoral hernia. Failure to do so has been responsible for overlooking a direct or femoral component of a hernial complex of the inguino-femoral area.

If no indirect sac is evident but a direct sac is obvious, it may be opened on its lateral aspect, to avoid bladder injury, and finger exploration performed of the indirect and femoral areas. If

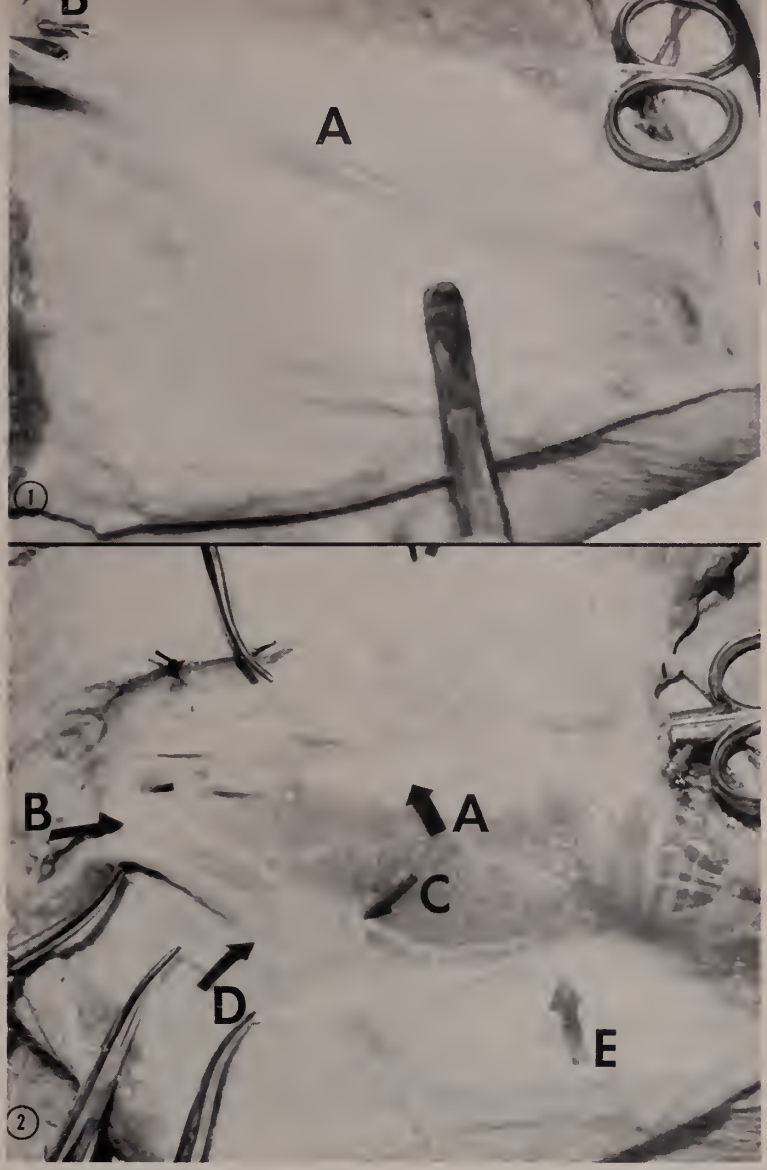


Fig. 1. Autopsy specimen of left inguinal region. Superficial tissues have been swept away from aponeurosis of external oblique. Observe: (A) Fibers of external oblique are loosely united and have little tensile strength when sutured at right angles to the fibers. (B) Scissors pressed against lateral margin of rectus sheath emerge just medial to pubic tubercle and spermatic cord (unprotected area between inguinal ligament and rectus margin is accordingly narrow and V-shaped). Fig. 2. Autopsy specimen. External oblique is severed laterally and held to demonstrate its insertion into rectus sheath. Observe: (A) External oblique inserts into midportion of rectus sheath (uppermost arrow indicates rectus sheath edge). Other pointers from above downward are: (B) pubic tubercle, (C) ilio-inguinal nerve between the oblique muscles, (D) shelving portion of inguinal ligament running parallel to spermatic cord, and (E) anterior superior iliac spine.

the sac is broad-mouthed (the usual circumstance) the peritoneal defect may be closed, and the sac simply invaginated through use of a row of interrupted or of purse-string sutures. It need not be resected, as this is an unnecessary step which could lead to bladder injury or troublesome bleeding. If the direct sac is narrow-mouthed, it should be treated by high ligation.

If an indirect sac is present in addition to either a direct or a femoral sac, the latter may be easily drawn into the indirect sac through traction on the indirect sac while dissecting bluntly with a gauze sponge.

What if no sac is evident? The peritoneal cavity should be entered at a point lateral to the estimated location of the bladder—i.e., either just medial or lateral to the epigastric vessels. Or, the latter may be interrupted and tied if exposure is limited in an obese person. Intraperitoneal finger exploration may then be accomplished. If negative, the patient's preoperative findings were probably due to prolapse of retroperitoneal fat through the internal ring. In this case the peritoneal defect is closed, the internal ring closed about a cord shorn of fat, and the transversalis fascia approximated to the inguinal ligament.

Special points on treatment of the sac need emphasis. A scrotal sac need not be dissected away from its entire bed—transection near the internal ring is entirely satisfactory. The distal sac is left open-mouthed and will not give diffi-

culty. Following dissection of the sac from the cord, vexing moments during high ligation of the sac may be remedied if the operator does not unduly stretch the sac to the point of drawing downward peritoneum, which, thinner than the sac itself, tears, and thereby makes closure difficult. If the sac is not unusually wide-mouthed, quick and easy closure of the sac may be obtained by a transfixion suture of a double strand of 2-0 cotton or silk—the suture is sewn into position, cannot slip, and if drawn tightly, will effect hemostasis when excess sac is trimmed away. The sac should be trimmed at a point about a centimeter distal to the suture ligature. Otherwise, when the stump retracts, portions of the peritoneum may slip free of the ligature. In large-mouthed sacs, best closed with several interrupted transfixion sutures, each closing a segment of the neck, the neck may be directed superiorly by a transfixion suture in which the two ends of the stump sutures are individually brought through the internal oblique and then tied (transfixion suture of Lockwood and Macewen).

Reconstruction of the Inguinal Floor

A frequently overlooked technical point is that of closure of the internal ring. The actual margins of the internal ring in transversalis fascia should be gently dissected away from underlying inferior epigastric vessels, and then approximated with interrupted sutures in order that the ring be narrowed. The ring should be narrowed until the very tip of the little finger just fits alongside the cord in the internal ring. The cord, of course, has been previously cleared of fat bodies, of the external spermatic vein and, when necessary, of bulky cremasteric fibers.

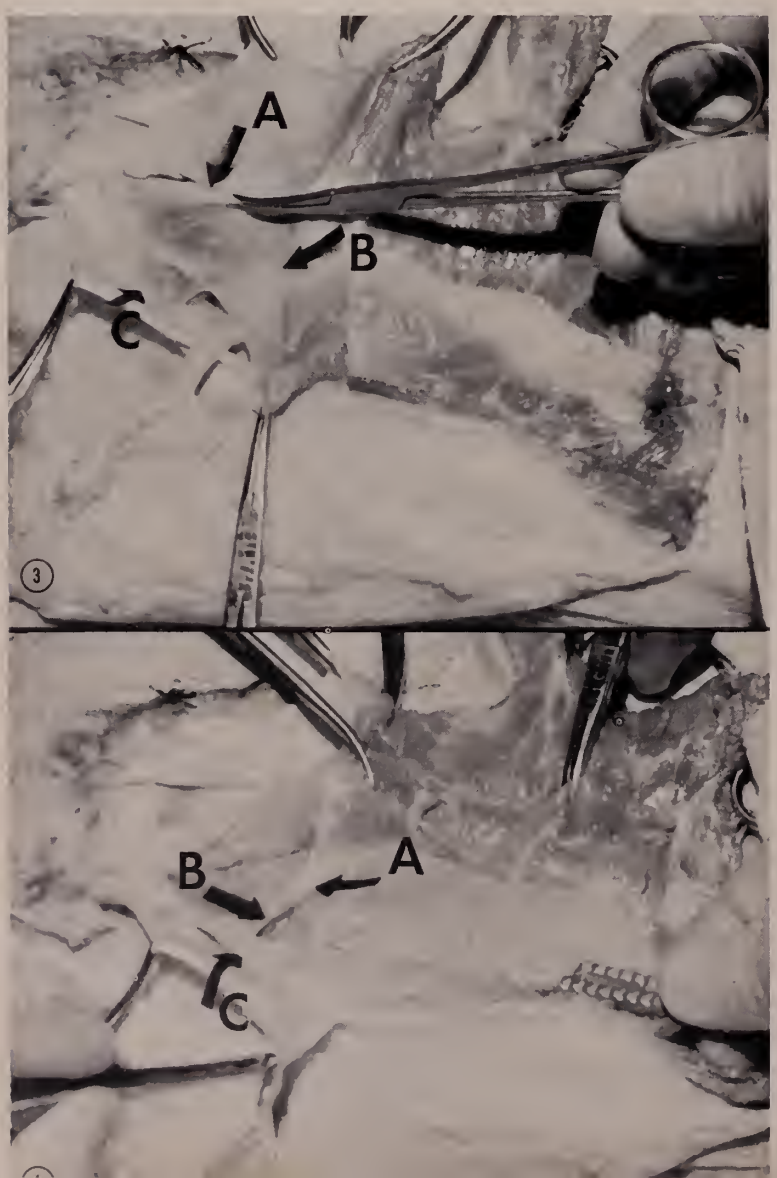


Fig. 3. Autopsy specimen. Internal oblique is severed laterally and held to demonstrate its union into rectus sheath. Observe pointers from above downward: (A) Lateral margin of rectus sheath, here held on stretch by hemostat (to be sutured to inguinal ligament). (B) Tissue representing fusion of caudal extension of transversus abdominus aponeurosis with transversalis fascia (suture needle should accept generous, though superficial bit of this layer). (C) Shelving portion of inguinal ligament, immediately adjacent to which is clearly defined internal ring (cord severed and displaced laterally). Anatomically, chief reasons for recurrence medially is failure to look for and approximate stout margin of rectus sheath to inguinal ligament and failure to look for and approximate transversalis fascia — transversus abdominus layer to inguinal ligament. A primary cause of failure for lateral recurrence is failure to dissect out and close anatomically the internal ring. Fig. 4. Autopsy specimen. Transverse abdominus is severed laterally and held to demonstrate its zone of fusion with transversalis fascia. Observe pointers from above downward: (A) Superior margin of internal ring at which point transversalis fascia begins to fuse with transversus abdominus as the united tissue extends across Hesselbach's area; inferior epigastric vessels seen indistinctly crossing ring, underneath cord. (B) Apex of internal ring. (C) Shelving portion of inguinal ligament with cord passing parallel to it.

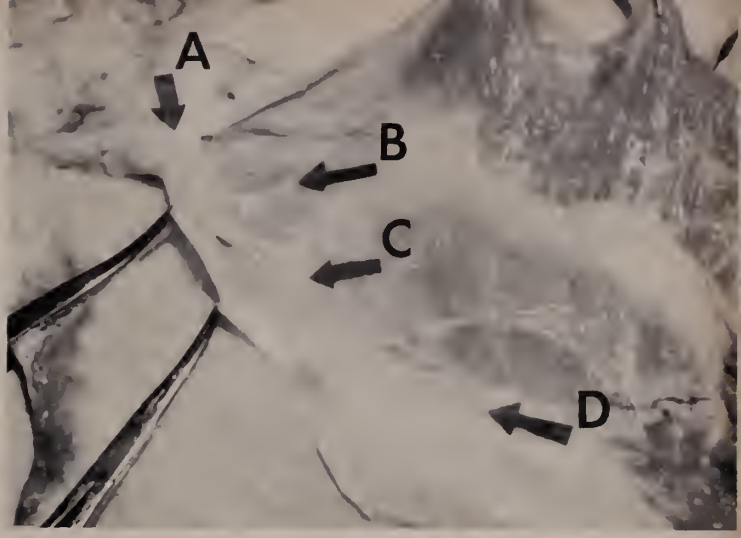


Fig. 5. Autopsy specimen. (A) Pubic spine, (B) Hesselbach's area, (C) cord emerging from internal ring, and (D) anterior superior iliac spine.

If, in indirect hernias, some weakness of Hesselbach's area is noted, it is well to imbricate the thinned transversalis fascia overlying it. This is done with a row of interrupted sutures of cotton or silk, usually 2-0. Similar material is then used to effect approximation of the previously discussed sturdy margin of transversalis fascia to the shelving margin of the inguinal ligament. The repair is altered but little for direct hernias—the internal ring is narrowed, the sac is imbricated, and the inguinal floor is reconstructed, the transversalis fascia being approximated to the inguinal ligament. In direct hernias, one may be more prone to use a Halsted I repair, overlapping the leaves of external oblique aponeurosis deep to the cord.

Inguinal floor reconstruction begins at the pubis. Initially, the sutures take a generous bite of both inguinal and Cooper's ligaments where they insert into the pubis, and then cross the defect to take *the lateral margin of the rectus sheath*. This is the prime area for recurrence in Hesselbach's area. After one or two such sutures, the following sutures will take the shelving edge of inguinal ligament, the needle *skimming* just under the strong fascia for perhaps a centimeter, and then passing across the defect to take an equal bite into the sturdy portion of transversalis fascia. (See figures 3, 4.) As each suture is placed, the bite on either side of the defect should be judged to be at a point equidistant from the apex of the "V," which is the pubic tubercle. This precaution will insure a well ordered suture row, in which each suture bears approximately equal stress. The sutures are placed about 6 to 7 mm. apart, so that should one break postoperatively, its neighbors would adequately maintain the repair. They are tied, of course, merely to *approximate* the tissues. There is no necessity to cut on the knots at this deep level in the wound; 2 to 3 mm. ends will insure against an undone knot.[1]

A longitudinal incision in the medial aspect of the rectus sheath, beginning 2 cm. above the pubis and skipping the nerves, is then made for a distance of about 5 or 6 cm.

Some operators feel strongly about the so-called shutter mechanism of the internal oblique. They place a row of sutures to approximate it to the inguinal ligament. Actually, if one goes sufficiently high enough under internal oblique to find the strong portion of transversalis fascia, and then approximates that fascia to the inguinal ligament, he will have incidentally brought internal oblique downward because of its muscle bundle insertions into transversalis fascia.

Quite uncommonly, one will find inadequate transversalis fascia, even on looking well under the internal oblique. In this situation any of numerous modifications may be used to bridge Hesselbach's area—metallic gauze, metal shield, free fascia lata graft, cutis grafts, or rectus sheath. I feel that rectus sheath is highly satisfactory and is immediately available. Two transverse incisions and a medial incision along the linea alba will free a flap for transposition across Hesselbach's triangle, and it may then be sewn to either the inguinal or Cooper's ligament. Supplementary imbrication of the leaves of external oblique may be of some help.

In the common hernia, a Bassini repair is usually sound, the cord being dropped on the layer of transversalis fascia to inguinal ligament, and the external oblique aponeurosis being closed over the cord. Care should be taken not to make too tight an external ring. If one wishes

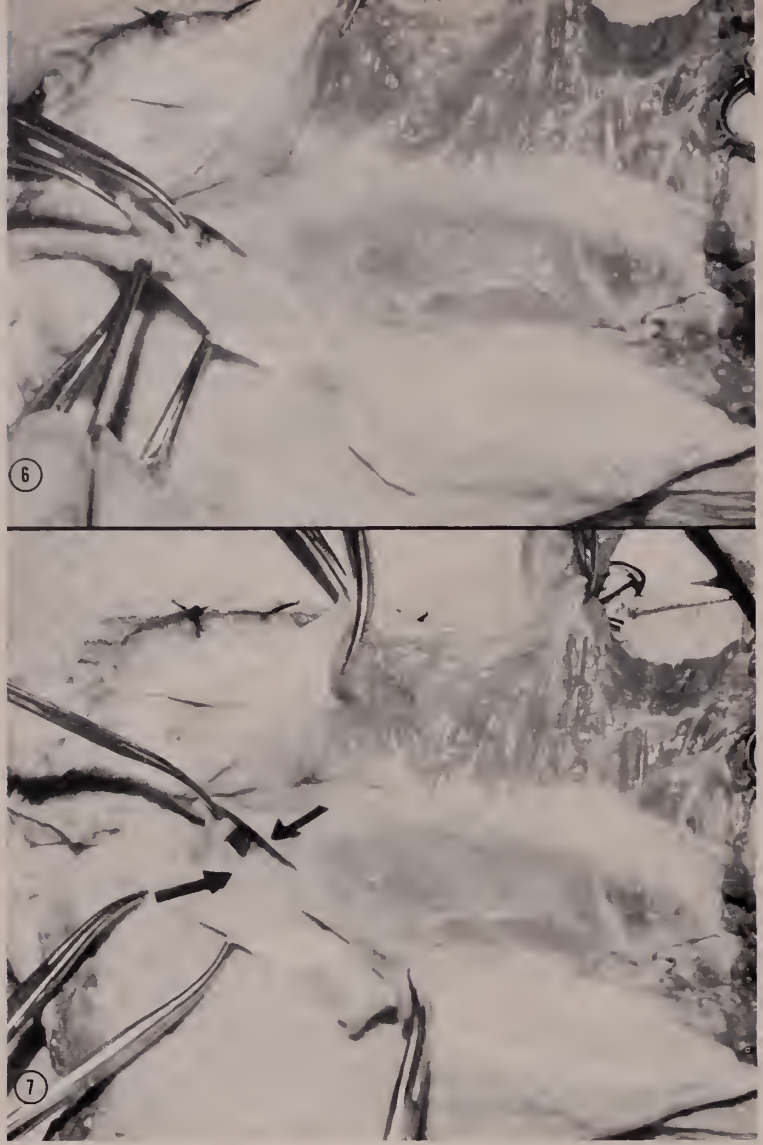


Fig. 6. Autopsy specimen. Illustrates very clearly the internal ring, with underlying epigastric vessels, and also shows the external spermatic vein held with a hemostat as it emerges just medial to the cord. Fig. 7. Autopsy specimen. With cord severed and retracted laterally, the internal ring margins are clearly shown.

to overlap the external oblique deep to the cord, some small measure of reinforcement may be obtained. Certainly the external oblique lacks strength, and is easily torn. Its value in herniorrhaphy possibly arises from scarring incidental to healing.

Summary

Repair of the usual adult inguinal hernia should begin with an anatomic, gentle dissection of the area, as thorough intraabdominal finger exploration of the inguinal-femoral area is performed. Conversion of multiple sacs into one should be performed, the sac being ligated securely deep to the transversalis fascia. The spermatic cord should be narrowed by division of the external spermatic vein, and removal of fat bodies and excessively developed cremasteric fibers. About the slenderized cord, the internal ring in transversalis fascia should be narrowed. With the cord elevated, the transversalis fascia should be sought out in its position under the internal oblique, and approximated with interrupted, nonabsorbable sutures to the inguinal ligament. The above steps constitute a sound repair in most cases. In unusual cases, modifications of closure may be of some value, using rectus sheath interposition or external oblique imbrication. •

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Clinical Application for Hypnosis

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Ever since the days of Mesmer, two centuries ago, the medical profession—like the general public—has considered hypnosis as something mystical and mysterious, smacking of quackery, and best avoided. Within the last decade such prejudice and skepticism have undergone definite changes. Today, in the United States, nearly ten thousand physicians and dentists have learned hypnotic techniques and use them in practice. These men invariably have found their knowledge of this subject of great practical value to many of their patients and to themselves. For the first time in its history, hypnosis is becoming an acceptable tool in medicine and dentistry.

Recognition

First official acceptance of hypnosis by the medical profession came in 1955 when the British Medical Association adopted a resolution, following a report by an investigatory committee, stating that hypnosis was of definite value in the treatment of some conditions. Recommendation was made that its techniques be taught in all medical schools. Similarly, in the United States, a committee of the Council on Mental Health of the American Medical Association has been appointed to study the value of hypnosis clinically.

Throughout its modern history, hypnosis has been found to be of such value by a few leading physicians that they have faced the disapproval of their colleagues, and of organized medicine, and have held to its use. Although Mesmer himself was alleviating many illnesses of functional nature at a time when there was no other form of psychotherapy available, he was condemned by other medical men. After an investigation, the French Academy of Science reported adversely on his methods and the great interest his successes had aroused was efficiently quashed. Later, Elliotson, Esdaile and others in England were the subject of actual persecution because they used hypnosis. But their results were such that they refused to give it up.

The greatest interest in hypnotherapy came during the period from about 1880 to 1900 when physicians from all over the world traveled to Nancy to learn hypnosis from Bernheim, greatest French physician of his day, who had adopted it. This peak of medical interest subsided when Freud advanced his ideas embodied in psychoanalysis and obtained their acceptance.

Freud

Freud's early work had been conducted largely by means of hypnosis, but he later abandoned it. This was largely due to the fact that he was a very poor hypnotist. Because of lack of knowledge and of some of his own personality traits, he found that he frequently was unable to hypnotize a patient. Another reason for his giving it up was rivalry with his associate Breuer. Breuer was one of the finest and most successful medical hypnotists of his day. Because he could not tolerate failure when his rival was so successful, Freud turned to other techniques.

Freud's followers generally have believed that his turn to other methods indicated that hypnosis is not worth-while. Most analysts and psychiatrists who are followers of the Freudian school have, as a result, ignored hypnosis. Few have ever read anything on the subject. However, those who have learned its techniques have found it of the utmost value in psychiatry and psychotherapy. Many books and technical articles have been written to this effect. But, although many psychiatricts do use hypnosis, the percentage remains small. Other physicians have tended to follow psychiatrists in their belief that hypnosis is of little or no value or importance.

Increasing Utilization

Among physicians now using hypnosis, after learning its techniques, are some in every medical specialty as well as a great many general practitioners. As an indication of the increase in

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its use, one prominent Los Angeles obstetrician has performed over 300 deliveries with the parturient under hypnosis, this within the past four years. It is doubtful if that many women in this country had been delivered under hypnosis during the entire prior half century. Newspapers in various sections of the nation, and medical journals, have reported many major surgical procedures performed under hypnosis without drug anesthesia. These have included lung resection,[1] cardiac operation,[2] cesarean section,[3] complete hysterectomy,[4] brain operations,[5,5a] and many others.[6-11]

Today, every physician is aware of the psychosomatic aspects of many ailments. He knows that the mind can influence the body, and that stress can cause breakdown of normal physiologic functioning. Usually he is aware that drug therapy often merely treats a symptom and that the basic causes of the condition are untouched. But if all patients with psychosomatic complaints were to be referred for psychotherapy, only a small percentage could obtain treatment. There are too few psychiatrists, analysts and clinical psychologists. There are not even enough of them to take care of the psychotics in our population in a proper way, let alone the millions of neurotics and tens of millions of psychosomatic cases who need therapy. The only answer to this situation is for other medical specialists and, particularly, for general practitioners to learn the basic principles of psychotherapy and to apply techniques which are simple yet effective. Hypnosis, in many situations, provides the answer, for it can produce quick results, although it is by no means infallible.

The general practitioner or specialist does not have to become a trained psychotherapist in order successfully to treat many psychosomatic conditions. Certainly he should have some basic knowledge of the principles of psychotherapy and of unconscious behavior and motivations. The situation is somewhat similar to surgery. Most physicians are prepared to perform minor surgery but, if the condition is a serious or complicated one, a surgical specialist is called in. Many neurotic illnesses require the services of a trained psychotherapist. Others, particularly psychosomatic illnesses, may be handled rather superficially, but with success. The general principles involved in psychotherapy can be learned readily by anyone who has had medical training.

Suggestion

Until the time of Freud, the only method of dealing with functional disorders was through suggestion, either with or without hypnosis—much more effectively if hypnosis was used. Old-time medical hypnotists did not confine their treatment by suggestion to functional ailments. It was sometimes successful in treating some organic complaints. Suggestion, though regarded by most physicians with suspicion, actually is used continually by them, often unintentionally and without awareness. And also unintentionally it can be very detrimental, for it is a force which works either positively or negatively. The office atmosphere, the "bedside manner," gestures, speech inflection and tone of voice, the reassurance which any sympathetic and skillful physician utilizes—all are suggestion and essentially are hypnotic techniques. A Cadillac is a suggestion of a busy practice and prestige.

Suggestive treatment is only one way in which hypnosis may be utilized. Analytic techniques are best. But suggestion is potent and can be of great value. Such treatment has been scorned by most analysts and psychiatrists, but unwarrantedly and through lack of knowledge of how it can best be used. It has been stated that its results will be only temporary and that there is danger of a worse symptom forming if one is suppressed by suggestion. These criticisms have some merit, but are greatly exaggerated. Suggestion, properly handled, can bring excellent results without danger of new symptoms arising. This is accomplished merely by making suggestion permissive rather than commanding or dominative. If the patient has an unconscious need for the symptom it will persist and no harm is done. But often the symptom can be eliminated readily. Suggestion has its place in psychotherapy.

Application of Hypnosis

Until hypnotic techniques were applied to analytic methods, hypnotherapy was largely a matter of suggesting to the patient that he would be well—that his symptoms would disappear. But modern usage is to employ various hypnotic techniques and phenomena to uncover the causes for neurotic behavior, or illness which is due to psychologic and emotional causes. Usually these can be learned in a very short time. In many cases they may be rather superficial. And then, a thorough knowledge of psychotherapy is unnecessary. To enable the patient to function ade-

quately and to eliminate a symptom, deep analysis may not be required. In conditions where there is considerable mental disturbance, depression, or where the causes cannot readily be brought out because of repression, referral to a skilled psychotherapist is, of course, indicated.

Not many physicians refer such ailments as dysmenorrhea and other menstrual disorders; migraine; allergy; respiratory conditions such as asthma, emphysema or bronchiecstasis; internal diseases such as duodenal ulcer, gall bladder disease, colitis, or chronic constipation. The list could be extended to cover the majority of psychosomatic illness. Yet more than drugs and medication is needed in such conditions. Hypnosis with brief psychotherapy can be the key to their treatment.

Limits

Hypnosis is in no way a panacea. It has its limitations. It is merely a tool and not a method. Sometimes its overenthusiastic practitioners oversell it in discussions or lectures. Its techniques can be adapted, however, to any school or form of psychotherapy, from mere reassurance to orthodox psychoanalysis. Learning to apply hypnosis clinically will include to some extent learning the rudiments of psychotherapy—no difficult or lengthy task.

Most of us are aware that there are various levels of the mind, though our knowledge of the unconscious is still, most unfortunately, very scanty. Though vitally needed, research in this field is minimal.

Safeguards

Not many know that the unconscious part of the mind thinks and reasons, though in a manner somewhat different from that employed by the conscious part. This can be demonstrated readily through automatic writing, where a person's hand may write lucid, connected material without conscious knowledge of what is being written. A variation of this is to set up a code of communication with the unconscious mind by means of signals—through a form of ideomotor activity. This may be of the utmost value in medical practice in psychotherapy as an uncovering device and even as a diagnostic tool. Cheek has described this technique in this journal[12] as I have elsewhere.[13] It consists of asking questions worded so they can be answered "yes" or "no," with ideomotor responses made through unconscious movements by the patient.

This questioning technique may be carried out either in the waking state or under hypnosis. It even provides a safeguard for the physician lacking a thorough knowledge of psychotherapy who might find himself in difficulties with a patient by perhaps getting into water over his head. Sometimes symptoms result from traumatic events too overwhelming to be faced by the patient. In approaching any past trauma or conflict, the unconscious mind may be asked if it is safe to bring the matter to consciousness. If the answer, by these movements, is "no," undoubtedly the case should be referred to a psychotherapist. If "yes," the physician can rest assured he is on safe ground.

It is well recognized in psychology that the unconscious mind is in control of all autonomic functions of the body and probably of the entire body mechanisms. Often this can be demonstrated through hypnotic suggestion. And through hypnosis this control may be utilized by the physician.

Conversion

A situation continually encountered by physicians, but seldom realized, is what has been termed organ language. This involves the conversion of an idea into a physical symptom. We often remark about some unpleasant idea or situation—"That is a headache to me;" "It's a pain in the neck;" "That makes me sick (or sick at my stomach);" "I can't swallow that" (globus hystericus). There are many similar phrases and not infrequently these ideas are converted into the actual physical condition. Headaches, nausea, neck and shoulder tension and pain are often the result. Such things can usually be corrected by very superficial psychotherapy—mere insight into the mechanism involved. And when insight has been gained, permissive hypnotic suggestion can then be valuable in treatment.

Still other hypnotic uncovering techniques are available. Some require a more thorough knowledge of psychotherapy. Dreams can be produced by suggestion either during the hypnosis, or later during the night. In hypnosis a patient often is able to understand the meaning of dream symbols and to interpret his dreams. The analyst must wait for his patient to dream. With hypnosis the patient can be told when to dream, and even what to dream about. Dream symbols can be pre-determined. The same dream can be repeated in different form for easier interpretation.

Uncovering Devices

Projective techniques involve having the patient see scenes of therapeutic importance on an hallucinated TV set or a motion picture screen. Or he may be led to hallucinate handwriting on a blackboard, or actual automatic writing can be elicitated, with much valuable information learned which the patient does not consciously know.

The orthodox technique of the psychoanalyst, free association, is much freer under hypnosis and may be valuable, although there are much quicker uncovering devices.

One of the most valuable hypnotic tools is age regression. The subject is told to return to some particular time or event and then he relives it, with much emotion in the case of psychic trauma. This is the most effective means of causing abreaction and carthasis.

Better Understanding

If physicians, and also the general public, had a better realization of what hypnosis really is, objections to it would vanish quickly. Various misconceptions are prevalent. For instance, almost everyone believes that, when hypnotized, he will lose consciousness as in sleep or with an anesthetic drug. Actually there is never loss of consciousness even in the deepest stages of trance. The subject is always fully aware. Nor is he "in the power of the hypnotist." A subject cannot be caused to do anything he would not do when awake—suggestions are unconsciously censored. And no one can even be hypnotized unless perfectly willing. What appears to be an exception in the latter case is that it is quite possible to hypnotize a person without his being aware of it. In such case, willingness may not be recognized consciously but must exist at the subconscious level.

Actually, there are many spontaneous hypnotic states into which we frequently slip, probably many times each day. But they are unrecognized as such. When one day-dreams it is nothing but spontaneous auto-hypnosis. It may be only a light state, or it may be deep. When reading a book, sometimes the reader will become so concentrated and interested that he slips into hypnosis and, if spoken to, may not hear. "Highway hypnosis" is a common experience—falling into a trance due to the very monotonous hum of the motor and fixation of vision on the white line of the road, which are matters conducive to hypnosis. Most people have had the experience of suddenly realizing they have passed through some town with no memory of having done so—an amnesia for it. Sometimes accidents result from such a trance state. These spontaneous states are not termed hypnosis, but that is exactly what they are. If people realized how commonplace hypnosis is, much fear of it and the misconceptions regarding it would be eliminated. Williams[14] has described and discussed these spontaneous trances.

Training Needed

As yet very few medical schools or universities offer instruction in hypnotic techniques. Dental schools are evincing interest and several, including the University of Oregon School of Dentistry, have offered extension courses in "hypnodontics." Invariably they are then repeated because of the excellent attendance and interest shown by dentists. It has been difficult for the physician to find adequate instruction. However, symposiums are being held in various cities throughout the country and attendance at these courses averages around one hundred. Many physicians have thus been able to learn the use of hypnosis clinically. These are basic courses and adequately prepare for use in practice, though further reading is recommended to give a more thorough knowledge of both hypnosis and psychotherapy.•

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Painless Myocardial Infarction

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A case of painless myocardial infarction of such severity as to require maintenance with levarterenol bitartrate for three days to keep patient out of shock is presented. Casual polling of fellow practitioners, including two cardiologists, indicated that, although all were aware of the occurrence of painless myocardial infarction, most of them either were uncertain that they had ever seen an acute case that fulfilled all the reasonable criteria or had seen very few. Subsequent review of the literature revealed the startling fact that estimates of incidence of painless myocardial infarction varied from very common to extremely rare. This paper will attempt to clarify this question. The case herein presented appears to be one of the very few detailed case reports in the literature that represents true, certain, painless myocardial infarction.

CASE REPORT

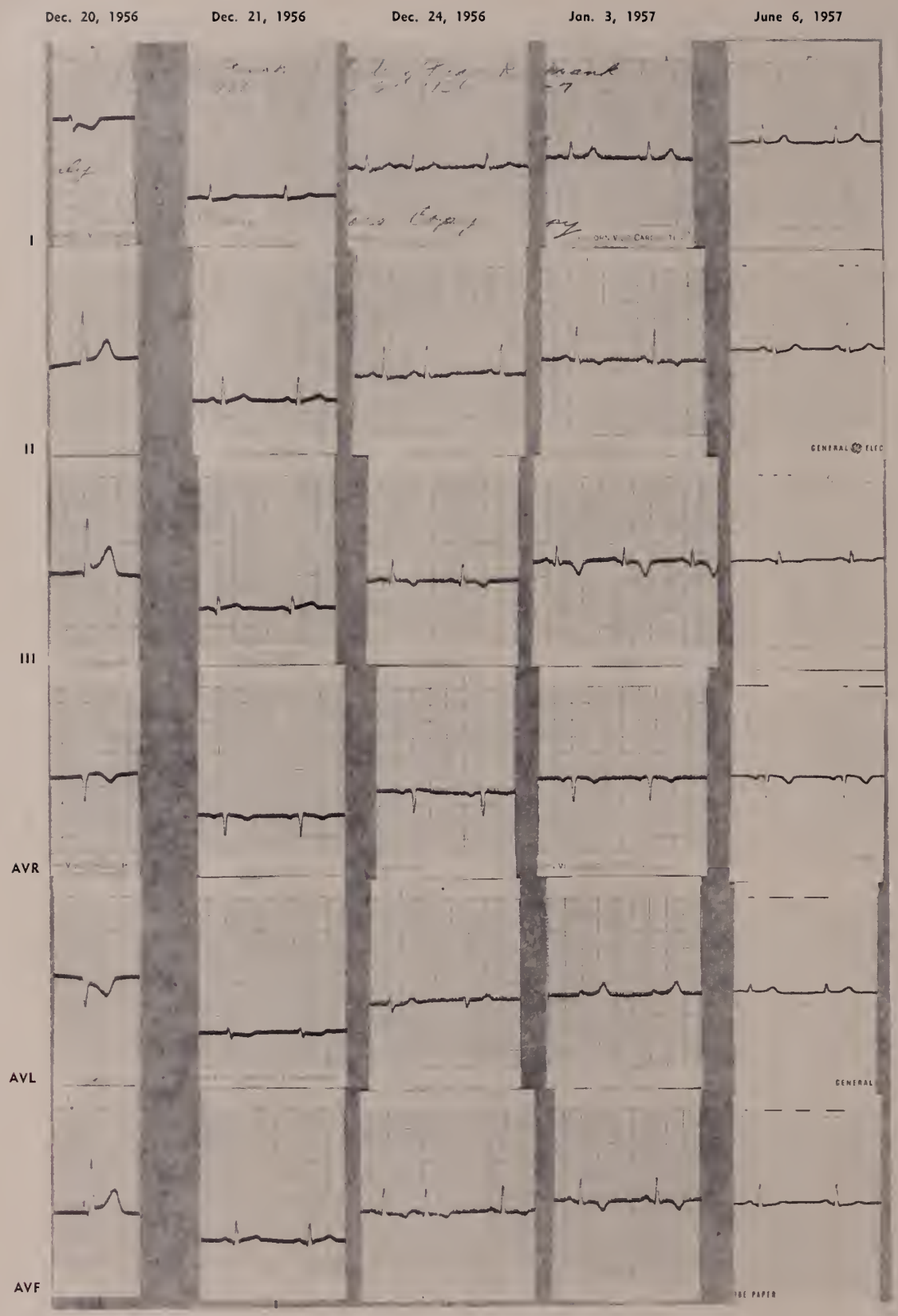
This 63 year old white male had been in apparently perfect health. He never had had an operation, serious illness nor had recently felt ill in any way until 1:30 P.M., December 20, 1956, when quite suddenly, and without warning, he had malaise, pernicious vomiting and fecal incontinence consisting of a large amount of soft, brown non-bloody stool. Following this, he lay down feeling very weak and looking very pale but had no recurrence of vomiting or defecation. He was first seen at 3:00 P.M., only at insistence of his colleagues, because he looked so pale and still felt weak. He vigorously denied then and repeatedly for days of questioning thereafter having any pain, pressure sensation, discomfort or any sensation that could conceivably be interpreted as an ache, pain or pressure. He apparently had a normal pain threshhold in that he had had during his life minor injuries, some headaches and various other common symptoms and felt that his appreciation of pain was about that of others. Prior to onset of symptoms there was no unusual activity or diet, except a party on the day of illness where he had had some snacks and did a little more cocktail drinking than was usual for him.

On initial examination at 3:00 P.M., the patient was alert and cooperative and remained this way throughout his course. He had extreme pallor. The heart beat could not be heard by stethoscope nor the pulse felt. A systolic blood pressure could barely be heard at 60.

A tentative diagnosis of painless myocardial infarction was made. The patient was hospitalized immediately. Within the half hour, oxygen was administered. Dextran was given because of the possibility of surgical shock from inapparent internal blood loss, and intravenous infusion of levarterenol bitartrate was begun. Within 30 minutes, blood pressure stabilized at 110/70, having previously taken a swing to 150 from excess levarterenol bitartrate which also caused muscle irritability and spasm. An electrocardiogram, taken while the patient was still in shock, within 15 minutes of hospital admission (Fig. 1), showed changes compatible with posterior wall damage and what appeared to be an A V nodal rhythm.

By 7:00 P.M. on the evening of admission, levarterenol bitartrate was discontinued. Shortly thereafter, perspiration and nausea reappeared and the systolic pressure dropped to 60. Levarterenol bitartrate was started and continued through the night. By morning the heart sounds were just barely audible. Pulse was 65 and blood pressure 120/77. Again levarterenol bitartrate was stopped, shock ensued and the intravenous medication was started again. This pattern continued for the next two days, so that he required nearly continuous levarterenol bitartrate infusion for 60 hours. No urine was put out at this time, presumably because of shock, but suggesting the possibility of true renal shutdown. Therefore, baseline electrolyte studies were taken which are noted later. By the following morning, however, some urine was excreted. Output was copious the next day. Anticoagulant therapy was started on the second hospital day and continued effectively through the hospital stay without complication or difficulty. Some left basilar rales and cough occurred on the second day. Penicillin was started because of presumptive diagnosis of bronchitis. Later chest x-ray showed a shadow in this area compatible with atelectasis or pneumonitis. Subsequent films showed clearing. Auricular premature contractions began on the fourth day. They responded to oral procaineamide. Chair rest was begun on the fourth hospital day. The blood pressure remained stable from then on. At no time during this convalescence or during many instances of drop of blood pressure could I get any admission of chest ache, pain, or discomfort of any sort. There had been no lapse of consciousness at any time except in natural sleep and no impairment of sensorium.

Laboratory studies during hospitalization showed a normal hemogram except for a white cell count of 16,500 which returned to normal in a few days. The serum


Dec. 20, 1956
Dec. 21, 1956
Dec. 24, 1956
Jan. 3, 1957
June 6, 1957
I
II
III
AVR
AVL
AVF

potassium and sodium, blood urea nitrogen and sugar were normal. Sedimentation rate was 36 mm. on second day (Wintrobe) and 37 on fourteenth day. There was slight fever on second and third days but none thereafter. Serial electrocardiograms (Fig. 1) over the next six months showed classic evolution for acute posterior myocardial infarction. Six months after onset of the infarction, the patient was at his full time executive occupation and felt entirely well. His heart sounds were normal and his blood pressure 120/70.

Criteria for Painless Myocardial Infarction

While the factors of pain sensitivity, definition of pain and care in history-taking are important in selection of proper cases, the following specific criteria must be met to qualify the patient as having had painless myocardial infarction.

1. The infarction must be acute. This insures no inaccuracy from loss of memory of past attack. Particularly, mild chest aches can easily be forgotten.

2. The infarction must be proved by autopsy or serial electrocardiography.

3. History must be taken with great detail initially and reviewed with the patient during convalescence or again before death.

4. Cases with sudden death must be excluded because history or pain appreciation may not be satisfactory.

5. No chest discomfort may be present that could be represented as pain, pressure, ache, smothering, or deviation from normal.

6. Marked dyspnea must be absent, for pain may not be appreciated during the anxieties and labors of air hunger or difficult respiration.[1]

7. The patient must be conscious at all times except for natural sleep. This excludes patients under anesthesia or who have fainted any time during the initial hours of the attack.

8. The patient must have clear sensorium at all times and be questioned about the presence or absence of discomfort repeatedly and forcefully during the first few hours of the infarction.

9. It is desirable that the patient has not experienced painful infarction previously or angina pectoris. Progressive narrowing of the coronary arteries causing myocardial ischemia and fibrosis could also cause loss of pain sensitivity in future infarction of these areas.[2]

Review of Literature

Kennedy[3] reviewed 200 autopsied cases from the Peter Bent Brigham Hospital from 1913 through 1936. After suitable exclusions, there were 142 cases of acute infarction for evaluation. Of these, only 4 per cent were considered painless. Of these, only 4 showed a reliable history by record review and of these four, one died after gasping for air and denying pain, while another had long history of angina and was semistuporous during his attack, being aroused with difficulty. He died two weeks later. Another had reliable story of marked dyspnea and died in six days, and another died almost immediately after marked respiratory difficulty. Thus, only one autopsied case every five years was considered to be possibly painless, and three of these four were at least very uncertain.

Stroud[4] reported on 49 cases of silent atypical occlusion with and without infarction and believed 13 of them were without pain. This report does not contain sufficient detail to evaluate.

Babey[5] studied the records of 116 patients admitted to King County Hospital at Seattle with myocardial infarctions in 1938. Only one case seemed to be without pain, and this patient had had a painful infarction three years previously. Babey concluded that it was a very rare occurrence.

Warner[6] reviewed 200 consecutive cases of recent infarction admitted to a Veterans Hospital from 1947 through 1950. Seven, or 3.5 per cent had no pain. Of these, one was in coma, one was moribund, one was under anesthesia, three were aphonic and one was in shock. They considered therefore that they had no certain cases of painless infarction.

Roseman[7] made a full review of the literature to 1954, pointing out that up to the year 1937, estimates for occurrence were from 4 to 61 per cent, but since then, with more careful scrutiny, the incidence seemed very rare. He reviewed the records of 220 cases seen at the Boston City Hospital. Ten, or 4.5 per cent, were presumably without pain, but only 5, or 2.3 per cent, had reliable histories. Of these, 4 had dyspnea with the attack, leaving perhaps one true case—or 1 in 220. He considered the incidence very low.

Discussion

Previous reports on painless myocardial infarction have many possibilities for error—perhaps the greatest being that the data are collected from old records rather than current experience. Random questioning of medical practitioners who handle problems of the heart has shown that there appears to be little certainty

of the frequency of painless myocardial infarction. Everyone seems to think others are seeing cases but no one seems to be seeing cases firsthand. Analysis of many of the available case reports in the literature shows that there are few, if any, detailed reports available. The case herein reported fits all the basic criteria for painless myocardial infarction. Since the diagnosis was made tentatively at onset and established within hours, the history seems unusually reliable.

Conclusion and Summary

1. Painless myocardial infarction is, after all, a very rare phenomenon.

2. An unusual, classic and seemingly entirely reliable case is reported. One unusual aspect of this case was the requirement of levartenerol bitartrate for three days after onset of attack before blood pressure was spontaneously maintained near normal.•

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Some New Regulations for Physicians with Medicare Patients

Office for Dependents Medical Care has some new and clarifying regulations dealing with medicare patients and ancillary medical personnel. They are:

Hospital accommodations—Dependents are eligible for semi-private accommodations (two or more beds) and pediatric cases may be handled in wards. For private accommodations, the following should be kept in mind: (1) when this arrangement is believed necessary by the doctor, the patient pays 25 per cent of the difference between the private room fee and the weighted average of semi-private, (2) when the patient or sponsor only insists on private room, the patient pays the full difference, and (3) when the hospital has only private rooms, the medicare patient pays 10 per cent of the daily charge for the room, or the total daily hospital charge, less $15, whichever is the greater.

Independent ancillary personnel—Nurse anesthetists and physical therapists who work on an independent basis can now be paid direct if (1) the attending physician certifies on form DA-1863 that the services were authorized by him and (2) the amount charged does not exceed the normal charge to the public having an annual income of $4,500.

Maternity case fees—If pregnancy terminates in premature delivery, the doctor is entitled to full fee if he has rendered continuous antepartum care beginning in the first 8 weeks of pregnancy. Should a maternity patient consult a physician in a locality away from that of her attending doctor or clinic, the doctor consulted is entitled to fee for a home or office visit.

Diseases That May Not Exist

Morton E. Levitan, M.D.
Kettle Falls, Washington

There are certain diagnoses, existence of which I have come to question. The labels that are attached to these clinical conditions just do not seem correct, or may be unjustified, or, in the final analysis, are not in the best interest of the patient. At least, they are conditions that are here presented in a different light. The six conditions which I shall discuss and seek to disembowel are vaginitis, trenchmouth, tonsillitis, hypertension, pneumonia, and certain forms of neurosis.

Vaginitis

One of the most galling examples is vaginitis. This condition is called an inflammation, and the cause is assumed to be infectious. Monilial and trichomonad organisms, found in the vaginal secretions, are declared the guilty parties. We compare vaginitis to more specific venereal infections—e.g., gonococcal—though we give monilial a certain respectability and do not connect it with extra-conjugal misbehavior. Emphasis is placed on resistance of the organism, even to long-drawn-out treatment, and possibility of reinfection by the husband. He is referred to a urologist and advised to use condoms. Now it is odd that this condition is rarely seen in the woman who is dirty, promiscuous or ignorant. In other words, we do not see it in the type in whom we would expect to find the highest incidence of infection. On the contrary, it prefers the prim, lordotic young woman, very neat, very virtuous, quite tense, and very meticulous in her personal hygiene. At first I wondered whether the inflammation, the irritation, and the discharge could result from too much unnecessary douches, but this is not the answer.

Let us consider the possibility that this is a condition in a tense woman that is comparable to atopic dermatitis. The nervous tension could be the cause of the increase in vaginal secretions, or the preoccupation with same. The inflammatory changes of the vaginal epithelium could be akin to those in eczema, and the monilia and trichomonas may be only saprophytes that flourish in this secretion. That would explain why cortisone suppositories relieve the itching and the irritation, although hydrocortisone supposedly has no effect on the monilia. How neatly this diagnosis requiring prolonged treatment and frequent visits replaces the colitis of Dr. Axel Munthe!

Trenchmouth

Next on the stand—trenchmouth. This is a dismal diagnosis, but one loved by Dr. "Alarmist." Two germs which may be saprophytic in healthy mouths are incriminated, and C-avitaminosis is thrown in for good measure. If there are a few small lesions, it is called canker sores. If they are larger, more numerous, and more troublesome, well then it is trenchmouth. Thus the diagnosis is one of quantity and not of quality. The term probably includes a number of separate conditions which are not well understood.

Tonsillitis

The advisability of tonsillectomy is the subject of periodic articles. I will try not to make this a rehash of the controversies that flare up at frequent intervals. As year after year goes by without my recommending to a single patient that the tonsils be removed, I cannot help wondering whether it is ever necessary. I have watched patients whom I advised against having the operation, to see whether I had done the right thing or not, and have not had to change my mind in a single case. The enlarged tonsils gradually shrank to a respectable size. Irregularly shaped

ones with purulent exudate seemed to clean themselves up, eventually producing a more pleasing cosmetic result for the examining physician's eye.

The acutely inflammed tonsil could be a particular local defensive reaction of the body, rather than an infectious invasion of the lymphoid tissue. The purulent exudate of acute lacunal tonsillitis might be of an entirely different nature from that found in the boil that we blame on staphlococci invading a hair follicle. The tonsils might be compared to the bumpers of an automobile. When the car has a collision, the first part stove-in is the bumper. Yet that is no reason for taking the bumpers off cars. It is possible that the tonsils have a similar function—i.e., to bear the brunt of the infection and produce a defensive reaction in building an immunity to the invading organism.

At one time it seemed to me that lymphatic follicles of the posterior wall were more numerous in patients who had had the tonsils removed. I tried to check this, but saw that often the follicles were just as numerous in some patients who had not had a tonsillectomy. However, in these patients, the tonsil would be small and hard, and probably consist mainly of dense scar tissue and very little functional lymphatic tissue, and be just as inactive as though removed. One recent text even recommended fulgurating these posterior pharyngeal lymphoid follicles. This negates Nature's attempt to have some active lymphatic tissue in the throat, without considering that the lymphoid tissue may be there for good instead of for harm.

To return to the advisability of tonsillectomy, it would seem that the correct thing to do, if doctors disagree on the need for operation and there is no emergency, is to give the patient a little more time and see whether it is really necessary.

Pneumonia

Pneumonia is such a common term, not only in the textbooks but also in common usage, that there is little doubt but that it exists. It does seem a pity that the classic lobar pneumonia should disappear so inconveniently just when the antibiotics came into use. Some claim that the sulfa drugs knocked out the pneumococci. In my practice, there are many patients in sparsely settled regions who have never had any sort of antibiotic. It is doubtful if the pneumococci could have been eliminated in these regions. In 1938 William N. McCartney wrote, "I have maintained stoutly since 1911 that pneumonia is not a disease at all. Not a disease but a morbid condition attendant on other affections and infections, a consolidation of lung tissue occurring as a complication in a large variety of infections, diseases and injuries." Could he be right, and the authors of the learned treatises all wrong and merely repeating an error some author started years ago?

The diagnosis of virus pneumonia is a convenient label for any lower respiratory infection. I have wondered whether it could be essentially a catarrh of the lower respiratory passages, some sort of chain reaction of the lining mucosa. It has been my experience that those cases of lower respiratory infection that ran a high fever improved rapidly, and the lungs would clear up in a few days. On the other hand, the disease would want to drag into weeks in those patients who had little or no fever. It would be interesting, assuming my experience was backed by other physicians, to try treating these afebrile cases with killed typhoid germs or other means of producing fever. Antibiotics seem to do a little good in some cases. In others, patients say they cannot see any benefit. Aerosol detergents or wetting agents have been more effective in clearing the lungs in some cases.

Hypertension

Hypertension as a primary disease is very rare, much rarer than the drug ads would have us believe. I think I have seen less than one case per year. The usual case of elevated blood pressure is due to nerves or obesity. If obesity is the cause of the elevation, weight reduction will not only bring the blood pressure down, but will make the patient feel much better. If the cause is emotional, the elevation is temporary and probably at its peak at the time the doctor takes the pressure. Starting the patient on blood pressure medicine might fix the condition, or the fear of it. Here is a good example:

A young woman who consulted me had a systolic pressure of 230 mm. She told me she was worried about cancer. I did a careful physical examination and told her I found nothing even to suggest cancer. After talking to her a little, I took her blood pressure again, and this time it was 180, that is, a drop of 50 points in less than one hour. Three days later she was in my office again, this time just accompanying her husband.

I took her blood pressure, and this time it was 130, a drop of 100 mm. without a single pill. If I had started her on medicine, that would have been given credit for the decrease, and she would have felt dependent on it from then on.

Of course, the main reason people are worried about high blood pressure is that they are afraid it will bring on a stroke. This fear may be founded on more tenuous ground than is generally assumed. I believe that it is the stroke that produces an elevation of blood pressure more often than the other way around. Hemorrhage in the brain is a space-occupying cerebral lesion that elevates the blood pressure. The stroke may be due to a corroded blood vessel breaking open, but as the physician may be called to examine the patient for the first time immediately after the stroke, he assumes that this very recent elevation of the blood pressure is the cause of the stroke. Thus blood pressure measurement is a scientific advance that may have done our patients more harm than good. We hang a sword of Damocles over their heads and force them to seek medical care for a condition that our instrument determines.

I have noticed that hypertensives and some cardiacs do much better after losing a large amount of blood, as by a severe nosebleed. I wish I had the conviction and independence enough to do a real blood-letting where I felt it indicated. The bloodless phlebotomies with blood pressure cuffs on the extremities are a pusillanimous and not a bold and really helpful measure.

Neurosis

This brings us to psychiatry. We usually assume that the neurotic is handicapped in adapting himself to life situations. This may be so, but it is possible that the world situation should come in for its share of the blame. It is not only flattering to the patient, but it bolsters his confidence in himself to tell him that it is not so much he that is at fault as this crazy world we live in. He will feel less inferior and inadequate if he is shown how easily he might have gotten along in the world as it existed a hundred, or a few hundred, or a few thousand years ago. It also happens sometimes, after I am all through explaining the mechanism of functional symptoms to a patient, apparently to his satisfaction, that he may ask me once again before leaving the office, "Now what is it that you said is wrong with me?" I usually assume that the patient wants to know what to tell his wife, and does not realize that I do not want to put any label on his difficulty nor call him a neurotic. I tell him that there is no reason for making a definite pathologic diagnosis. I would rather that he say with Popeye, "I yam wot I yam, and that's all I yam." He is just another human being with his good points and his shortcomings, either of which can sometimes be a trial.

I have seen several women lately presenting almost identical psychologic pictures. They seem quite composed when they come in, and may broach the interview by asking me whether they are starting through the change. This has occurred to them because, of late, they have become quite emotional and liable to break out in tears without any reason. One woman, in describing how tense and irritable she has become, told me that she was afraid to have her husband say good morning to her, lest she snap and bite his head off, or start crying. They are usually good women of hard-working, respectable, and fairly well-to-do middle class homes. There are no menstrual irregularities or hot flashes, and the only symptom on a hormonal basis may be premenstrual tension. I know the families well enough to be sure that there are no skeletons in the personal or family closet. In these cases, I do not think a psychiatrist could add much to what I know of these depressions and emotional instabilities. I am definite in stating that it is not the menopause.

Going on from there, we look for other possible causes. But everything is going well. Business is good. The husband is not the kind to play around. Finally I have been considering whether it is possible that things are going too good. That is the only explanation that I have to offer. There are no difficulties to overcome, no challenges, no tasks to give some solid satisfaction. Even the little tasks that used to give a woman some pride have been eliminated. Instead of baking her own bread, it is so much easier just to buy a sliced loaf in the local supermarket. Getting clothes is now just a question of picking them out and charging them. A continually sunny clime is not always in tune with human nature. Peace may be wonderful, but war does have an exhilarating effect on the population. Suicide rates drop sharply. Does the number of depressives drop likewise?

Gorky, in his short story, Orloff and His Wife, tells of a couple that live a brutish humdrum

existence, without show of love between them, without happiness, accentuated only by his frequent drinking bouts when he beats her. Then an epidemic hits the community and they are both absorbed and happy in helping the stricken. Once the epidemic is over, they revert to their previous monotonous, brutish existence. Poor human beings, that it should require a calamity to bring them happiness.

We ridicule the soap operas with their unending train of woe and tribulations. Could they be the vicarious substitute for the misfortunes lacking in a woman's unexciting existence? We go to see tear-jerking plays, come out furtively wiping our eyes and say that the play was really good and we really enjoyed ourselves.

I will admit to the patient that it seems ridiculous to think that the trouble may be that things are going too well. I can only say that I have wondered about it. Sometimes they take over from there and tell me that when their child was sick, and they stayed up all night with him while he was delirious with fever, the depression and tearful misery did not bother. I point out that if it were the menopause, the added worry would aggravate the condition. At least this explanation does help. They know what they have to contend with, understand why I give them sedatives, and use them more judiciously.

Conclusion

It may seem surprising that a general practitioner should question the opinions of specialists. The general practitioner does not see the concentration of cases that the specialist does, and does not have the specialist's elaborate technical facilities. But the general practitioner has a different medical philosophy, and maybe, because he sees fewer trees, he is better able to see the forest. Hence, certain medical conditions may present a different picture to him. •

Rehabilitation Group Studies Various Programs

The American Medical Association's Intra-Association Committee on Rehabilitation has, for some time, been reviewing and studying the rehabilitation programs of various federal and private national agencies.

Through conferences and collection of pertinent material, the committee hopes to prepare guides for medical societies for developing sound rehabilitation services and facilities at the local level.

Frank H. Krusen of the Mayo Clinic is chairman of the intra-association committee. Other members are O. A. Sander, Milwaukee, from the Council on Industrial Health; Walter H. Baer, Peoria, Ill., from the Council on Mental Health; Guy A. Caldwell, New Orleans, from the Council on Medical Education and Hospitals, and Hoyt Woolley, Idaho Falls, Idaho, from the Council on Medical Service.

Briefly, the committee's objectives are to coordinate rehabilitation interests and activities within the AMA, foster medical supervision of rehabilitation services and centers, study the problems and inter-relationships of the medical, social, educational, and vocational aspects of rehabilitation, and keep the medical profession abreast of new and pertinent information regarding rehabilitation.

The committee held a meeting in Washington recently and invited representatives from the Office of Vocational Rehabilitation of the U.S. Department of Health, Education and Welfare, the Division of Physical Medicine and Rehabilitation of the Veterans Administration, the President's Committee for the Employment of the Physically Handicapped, and the Council on Rehabilitation of the Medical Society of the District of Columbia, as well as representatives from five county medical societies in the surrounding area.

Previously the committee had met with representatives from the American Academy of General Practice and the American Heart Association.

The committee is presently organizing an educational program to acquaint physicians with the value, need, and importance of rehabilitation services.

Glaucoma Case Finding

Earl L. Barrett, M.D.
SEATTLE, WASHINGTON

Screening for glaucoma by means of tonometry should be an integral part of a complete routine physical examination for individuals over 34 years of age. Seven years experience in my office has shown a 2+ per cent incidence of uncomplicated glaucoma. Surveys at the University of Oregon and Yale University Medical Schools have shown the same incidence.

Tuberculosis and diabetes mellitus routine case screening have become well established in spite of their relative rarity—glaucoma screening can be done less expensively, more quickly and is much more productive.

Glaucoma is not a specific disease but a term used to describe an assortment of various intraocular conditions with the common factor of abnormally elevated intraocular pressure. This increased pressure results in degeneration of the visual elements with resultant blindness—at first an insidious peripheral field loss and terminally central blindness.

It is not the purpose of this paper to differentiate the sub types, but to deal with the main factor (intraocular pressure) and its detection in the uncomplicated type of glaucoma.

Symptoms

Twenty-five per cent of glaucoma can be suspected from a history of recurrent mild headaches and blurred vision. This type occasionally has rare episodes of an acutely congestive phase. Dramatic findings and symptoms are then present—i.e., a red, painful eye with edematous conjunctiva, a relatively large pupil and decreased vision. It is usually associated with nausea and vomiting. This is easily misdiagnosed in children as meningitis or in adults as conjunctivitis with an abdominal disorder.

In 70 per cent of cases, glaumoca is a symptomless disorder. The onset is insidious and the patient invariably notices nothing wrong until the disorder is well advanced and central vision has begun to fail. Only exceptionally does he complain of mild pain, haloes, fogginess or any symptoms common to the rare acute congestive episodes of the less common type.

Face-to-face visual fields, in which the examiner compares his field to that of the patient, are normal until the field damage is so extensive that the patient has difficulty walking through doorways. Ophthalmoscopic examination for optic nerve head atrophy is of no value as an early finding. Glaucomatous cupping is in reality optic nerve head atrophy and, therefore, is a late finding. Testing intraocular pressure with one's finger is valueless as an aid in detection of early cases.

Acute episodes of very high tension will produce findings and symptoms in the less common type, but only very rarely do symptom-producing episodes occur in the more common type. These rare episodes are often precipitated by systemically administered drugs or by emotional crises. Systemic or local steroid therapy at this time will mask the symptoms and findings so as to obliterate the chance for a diagnosis without tonometry.

Measurement of Intraocular Tension

The best way to establish the diagnosis of glaucoma early enough to prevent severe visual field loss is by measure of the intraocular tension. (True intraocular pressure is not measured by a tonometer because this ignores the factor of ocular rigidity.) However, the clinically used method of measuring the intraocular pressure with a tonometer is satisfactory for diagnosing glaucoma. Finger pressure testing is not sufficiently accurate for screening purposes.

The early detection of patients with glaucoma can and should be done in the offices of general practitioners and internists. All ophthalmologists routinely check the tension of persons over 35

years of age. However, not everyone is able to consult an ophthalmologist.

The intraocular tension can be satisfactorily measured by means of a domestic Schiotz Tonometer sold for between $50 to $70 by most surgical supply companies. It is possible to obtain a satisfactory imported instrument for $25. A Tolman indicator can be obtained for $12 from the Ophthalmological Foundation, Inc., 111 E. 59th St., New York 22, N. Y., or from any surgical supply house.

Conclusion

General practitioners and internists should include glaucoma screening in their complete workup. Cases will then be detected early and needless loss of peripheral vision will be avoided.

I urge these doctors to equip themselves mentally to screen for glaucoma, to obtain the necessary equipment and become familiar with its operation. The need for screening of the entire adult population is imperative. Whatever aid is necessary for this procedure can be obtained from the nearest ophthalmologist or through the secretary of the Eye, Ear, Nose & Throat Section of most state medical associations. •

4347 Brooklyn Avenue (5).

AMA Presents New Radio Health Series

To give your community a monthly report on the newest and best in medicine, the American Medical Association introduces its new radio transcription series—"Health Magazine of the Air." Based on current items from *Today's Health* magazine, the new 15-minute series features Mr. H. V. Kaltenborn, veteran newscaster and radio-TV commentator, and W. W. Bauer, M.D., AMA's Bureau of Health Education director. The programs are produced by the Marshall Organization, Inc. under the direction of the Bureau.

Seasonal health spot announcements—three 15-seconds; three 30-seconds, and two one-minutes—will be presented on the reverse side of the platters. These spots will be given by popular movie personalities who contribute their time as a public service. The announcements were presented in February by Peggy Wood of the "I Remember Mama" program.

First shipment of the new transcriptions were made to approximately 400 radio stations throughout the country in February. The platters are to be released about the fifth day of each month from February through December, 1958, for immediate broadcast. Although the present selection of stations has been based on those previously airing AMA radio transcriptions, local medical societies may contact the Bureau of Health Education for further information regarding additional outlets.

Toxaphene-Lindane Poisoning by Cutaneous Absorption

Report of a Case with Recovery

Robert W. Pollock, M.D.
BAKER, OREGON

In the medical literature, there are no instances recorded of poisoning in the human by cutaneous absorption of Toxaphene-Lindane with symptoms which could be attributed to pharmacologic action of the material.

Toxaphene is a chlorinated camphene which is used as an insecticide. Lindane is a benzene hexachloride which is also used as an insecticide. Toxaphene-Lindane is used as an insecticide to kill larvae of mosquitoes, flies, and roaches. The minimum lethal dose of Toxaphene is 3 Gm. and of Lindane 15 Gm.

The lethal mixture of Toxaphene-Lindane can be absorbed through all portals, including the skin. Symptoms of the two drugs are practically identical. Usual sequence of events after ingestion are central nervous system stimulation, high temperature, convulsions, gastric irritation, vomiting, diarrhea, respiratory failure, and death.

In the identification of the two drugs there are no tests available which can be performed in a clinical laboratory.

Evidence in the following case points directly to Toxaphene-Lindane as having been the causative factor. It also reemphasizes the great value of a thorough history in arriving at a working diagnosis.

REPORT OF CASE

On April 22, 1957, I was called to attend a white, male farmer, 70 years of age. He was unable to give a history because he was semi-conscious, disoriented, and stuporous. The wife stated that at approximately 3 A.M. of the preceding day he suddenly developed a generalized headache with fever, marked lassitude, and poor coordination. Nausea was severe, and he vomited many times. He complained of severe epigastric pain, severe generalized muscular aches and pains, particularly of the extremities. The nausea and vomiting were severe during the first 12 hours, but gradually decreased in severity after 48 hours. There were no convulsions. The possibility of accidental poisoning was discussed with the wife. She could not recall anything of significance, except that the family had eaten home canned beans the evening before. As no other member of the family was ill, the possibility of botulism was discarded.

The only thing of any consequence in his past history was that he had had Rocky Mountain Spotted Fever in 1947. He had been treated occasionally during the past 20 years for auricular fibrillation and hypertensive heart disease. Another point of interest was that he had been bitten many times by mosquitoes during the previous two weeks.

The patient was treated at home for nine days. He was stuporous, apathetic, and exhibited a very dull sensorium. He refused to be hospitalized. On being questioned, he would attempt to answer, yawn, and then drift into a half wake, half sleep condition.

During the first week, he did not exhibit any neurologic signs except dulled sensorium. He complained constantly of epigastric pain and muscular aches and pains. The musculature was flaccid. The patient ingested fluids but vomited many times. Temperature ranged from 101 F. to normal. He also complained of his skin itching, but no rash was noted. He was given penicillin and Chloromycetin, plus digitalis for auricular fibrillation.

The only positive physical findings, until the sixth day of treatment, were the variation in temperature, auricular fibrillation, blood pressure 185/100, and dulled sensorium. There was tenderness to palpation in the epigastric area. Reflexes were weak and muscle tone was poor.

On the seventh day of treatment, he developed a stiff neck. Despite this development, he refused hospitalization. He became semicomatose on May 1, 1957, on which date he was hospitalized. He was very dehydrated.

Treatment was supportive only. Balanced electrolyte soultions were used to restore hydration.

The patient complained of diplopia and he had difficulty in swallowing. Reflexes were weak and muscle tone was poor. Retinal arteries were sclerotic. There was papilledema and there were paralysis of the right third, both fourth and the left sixth cranial nerves. The

Read before the Baker County Medical Society September 9, 1957.

neck was stiff. Pulse was irregular and arrhythmic; blood pressure was 200/100; a to-and-fro murmur was heard over the whole precordium. There was tenderness in the epigastrium.

On the fourth hospital day he developed a right Babinski and the next day it was bilateral. The neck was still stiff. He was still semi-stuporous and disoriented. Left third nerve and both fourth nerves were paralyzed. X-rays of the skull were negative.

Complement fixation for rickettsiae and stool cultures for equine encephalitis were reported negative by the United States Public Health Service Laboratory at Hamilton, Montana. Blood counts revealed no abnormality. Urine albumin was recorded as 3 plus. Urea nitrogen was 45.

Spinal fluid pressure was increased; the fluid was xanthochromic; protein, sugar and chlorides were normal. No organisms were seen on stained smears. On May 5 the fluid had returned to normal.

Diagnostic possibilities considered were: western equine encephalitis, rickettsial disease with central nervous system manifestation, intracranial neoplasm, brain abscess, chronic subdural hematoma, cerebrovascular disease and encephalitis lethargica. The diffuse infection of the brain called encephalitis lethargica seemed the best diagnostic possibility because of the acute type of onset, with typical fever, oculomotor paralysis, insomnia, diplopia and mild choked disk. Equine encephalitis was ruled out because no cases had been reported in horses in this community.

The patient improved slowly. First sign to clear completely was the oculomotor paralysis. The Babinskis then disappeared and he recovered binocular vision. Papilledema was the last to be eliminated.

Nausea, vomiting and epigastric distress stopped on the tenth day and the dullness of sensorium was replaced by normal reactions. Gait was ataxic at first and there was temporary difficulty in walking except with assistance. He was discharged from the hospital May 14, 1957.

On May 20, I called at his home near Richland, Oregon, and reviewed the sequence of events leading up to his illness. On questioning him regarding the use of insecticides, he stated that the day before the onset of his illness he had had prolonged skin contact with a Toxaphene-Lindane solution. Desiring to rid his small band of sheep from wool insects, he had mixed the solution into the wool with his hands. This procedure consumed two hours time. The contaminated skin was not washed with soap and water. Symptoms developed 10 hours later. The final diagnosis of this case is Toxaphene-Lindane poisoning secondary to cutaneous absorption. •

2170 First Street.

Medical Education Week, April 20-26, 1958

During the week of April 20-26, the medical profession will join forces with the Woman's Auxiliary and the medical schools throughout the country in presenting programs emphasizing the progress, problems, and challenges of medical education. The world leadership of American medical schools, their expanding enrollments, research triumphs, and community services are little known by the public at large, and Medical Education Week is designed to create greater public appreciation and support for their continuing achievements. At the same time, it will stress the problems which the foreseeable future holds—increased competition for the qualified school candidate, greater facilities for teaching the growing complexities of medicine, and the need of an expanding and aging population for more doctors. And, not least of all, is the immense cost of medical education which already is a $200 million annual undertaking.

The six specific aims of Medical Education Week are to:

1 — portray the key role that medical education plays in the promotion and maintenance of the nation's health and security, and make the public aware that the nation's 83 medical schools are the foundation of our entire health and medical structure;

2 — explain how the medical schools are striving to meet the demand for larger numbers of physicians and, at the same time, characterize American medical education;

3 — call attention to the steady progress in the medical sciences, showing what this means in terms of longer life, better health and greater freedom from disease and disability;

4 — point out the wide range of activities—teaching, research, service and leadership—carried on by the modern medical school in addition to its job of training new doctors;

5 — make clear the extent and nature of the new challenges to the profession, some growing out of our constantly expanding fund of medical knowledge and some resulting from the mounting complexity of our civilization, and

6 — point out some of the steps being taken constantly to push back the horizons of the medical sciences and to realize the full potential of the nation's health resources.

Post Myocardial Infarction Syndrome

WILLIAM COHEN, M.D.
AND
LEONARD B. ROSE, M.D.
PORTLAND, OREGON

At the 28th scientific session of the American Heart Association in October 1955, Dressler described a post myocardial infarction syndrome characterized by recurrent pain, fever, and pericardial, pleural and pulmonary involvement. He reported 10 cases.[1] In discussing differential diagnosis of non-specific pericarditis and myocardial infarction, McGuire et al. described a case of recurrent pericarditis occurring two and eight weeks respectively after an acute myocardial infarction and which appeared to resemble the syndrome as described by Dressler.[2]

We have observed a patient with many recurrent episodes who seems to fulfill the criteria outlined by Dressler. In order to arouse interest in this syndrome and to stimulate other observers to report similar cases, which we believe to be more numerous than heretofore recorded in the literature, this case is described in detail.

CASE REPORT

First Admission: A married, 44 year old white male, while traveling, was hospitalized in a small community hospital June 2, 1955 because of severe oppressive pericordial pain which radiated to the left shoulder and down the arm to the ulnar aspect of the hand, and which was associated with profound weakness and profuse sweating. An electrocardiogram taken the same day revealed findings suggestive of an acute anterior wall infarction. A repeat electrocardiogram on June 4, 1955, showed a fresh, full thickness, anterior-septal infarction. (See figures 1, 2.)

The patient was seen in consultation June 5, 1955. Further questioning disclosed that for a week prior to the acute episode he had experienced repeated short episodes of pericordial pain radiating to the left shoulder and down the left arm to the ulnar aspect of the wrist. These episodes of pain were brought on by exertion and relieved by rest. Physical examination showed an apprehensive, diaphoretic white male with temperature 100 F., pulse regular at 78 per minute, and blood pressure 98/80. An occasional fine rale was heard in the left base posteriorly and a pericardial friction rub was present. The rest of the examination was negative.

Due to the acute nature of the condition it was considered inadvisable to move the patient. Anticoagulants were not recommended because of inadequate laboratory facilities. On June 18, 1955, the patient, at his own insistance, moved to his home via private automobile, refusing further hospitalization. An electrocardiogram taken at home June 30, 1955, showed changes consistant with an organizing, full thickness, anterio-septal infarct.

On August 11, 1955, the patient appeared at the office and stated that due to economic reasons he had to return to light work. He could not be dissuaded and was advised that he did so at his own risk. His physical condition at that time was good and fluoroscopy disclosed no cardiac or pulmonary abnormalities. Electrocardiogram taken August 19, 1955, (Figs. 1, 2) showed a stabilized, anterior wall infarction.

Second Admission: On September 13, 1955, while attending to his business 300 miles from home, he developed a moderate sticking pain in the upper anterior chest and left shoulder. The pain was aggravated by deep breathing and motion, and was not associated with marked weakness or sweating. However, since the pain persisted for three days, he sought relief from a local physician and arranged transportation home.

On September 16, 1955, he was hospitalized and found to have a temperature of 101 F., pulse 96, and blood pressure 88/60. No additional findings were elicited on physical examination. Blood count revealed hemoglobin 15.2 Gm., red blood count 5.70, white blood count 13,700 with normal differential, and sedimentation rate of 4/21 (Westergren). Urine showed a faint trace of albumin, a rare hyaline cast and 1-2 white blood count hpf. Electrocardiogram (Figs. 1, 2) showed elevation of the ST segments in leads 1,2,3,AVF and V_5 and V_6 with upward concavity. The temperature fell gradually and was normal by September 20, 1955. The sedimentation rate rose to 10/90 on September 19, 1955. The clinical impression at that time was that the patient had developed a new posterior wall subepicardial infarction. He was placed on dicumarol therapy.

At the patient's request he was discharged the following day to continue convalescence at home. Anticoagulants were continued. An electrocardiogram taken September 24, 1955, prior to discharge, showed less elevation of the ST segment from the base line without Q wave or reciprocal ST changes.



Fig. 1. Standard and unipolar limb leads.

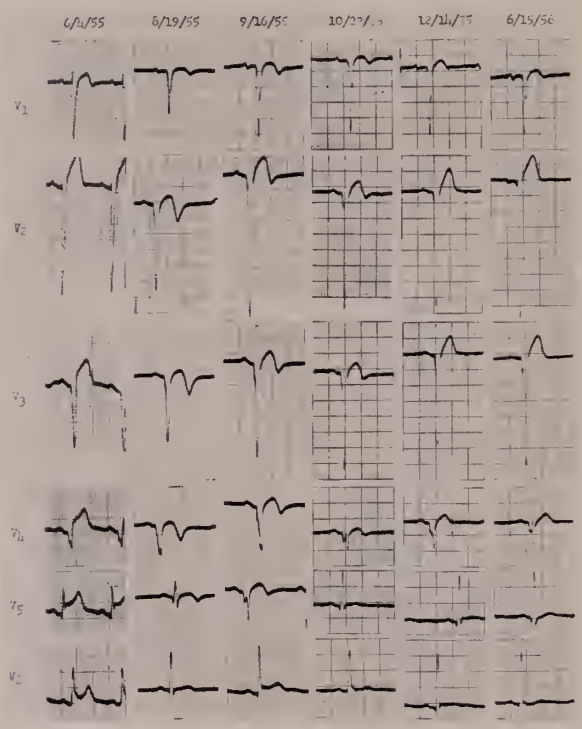


Fig. 2. Precordial leads.

A follow-up electrocardiogram taken October 22, 1955, (Figs. 1, 2) showed that the ST elevation had returned to the base line, and that the electrocardiogram now resembled the tracing taken prior to the second attack.

Third Admission: On December 13, 1955, the patient developed a feeling of oppression in his chest with pain over the upper sternum and left shoulder, similar to the episode of September 13, 1955. He was examined December 14, 1955, at which time his temperature was 98 F., pulse 84 and blood pressure 110/70. The lungs were clear, the heart tones were normal, and there was no evidence of cardiac enlargement or failure. Fluoroscopic examination of the heart and lungs was negative. White blood count was 10,400, and sedimentation rate 6/38. An electrocardiogram (Figs. 1, 2), taken at this time, again showed elevation of the ST segment in leads 2,AVF and V_6, though not to the same degree as present on the electrocardiogram taken on the second admission. The patient remained at home. His temperature reached a maximum of 101 F. on December 16, 1955, and subsided gradually. It was normal by December 23, 1955. On January 6, 1956 the symptoms recurred, this time associated with coughing and dyspnea and aggravated by breathing and motion. He was hospitalized January 7, 1956.

On admission, temperature was 102 F. The patient was moderately dyspneic. Impaired resonance and diminished breath sounds were elicited over the right lower chest anteriorly. The heart tones were normal and the rate was elevated consistent with the elevated temperature. Blood count showed hemoglobin 14.3 Gm., red blood count 5.00, white blood count 14,600, P.M.N. 65, band cells 17, lymphocytes 16 and monocytes 2. Sedimentation rate was 7/50. Urinalysis was negative except for 2-4 WBC/hpf. X-ray of the chest showed a questionable density in the lower portion of the left lung. An electrocardiogram taken January 12, 1956, showed non-specific ST elevation in leads 2, AVF and V_6 somewhat resembling the electrocardiogram of December 14, 1955. The temperature subsided gradually and was normal by January 12, 1956. The sedimentation rate rose to 22/115. He became asymptomatic and was discharged on January 15, 1956 at his request.

Fourth Admission: On February 4, 1956, a follow-up examination including fluoroscopy was not remarkable. There was no evidence of cardiac enlargement. An electrocardiogram showed that the ST elevations were returning to normal. On February 8, 1956, the patient again developed a vague oppressive sensation in the anterior chest with radiation to the left shoulder and down the left arm. It was aggravated by cough, deep inspiration and motion. In addition, diffuse muscle pain was also present.

Temperature on admission was 101 F. Blood picture showed hemoglobin 14.7 Gm., red blood count 5.00, white blood count 12,300, P.M.N. 85, band cells 3, lymphocytes 7, monocytes 5 and sedimentation rate was 15/58. Urinalysis was negative. An electrocardiogram taken shortly after admission showed slight elevation of the ST segment in leads 1 and 2 similar to those seen in the second and third admissions except that in the previous two admissions the ST elevations occurred in leads 2,3, AVF, V_5 and V_6. Prothrombin time on February 15, 1956, was 18.5 per cent and serum transaminase was 13 units. On February 17, 1956, a few fine rales were heard in the posterior basal segment of the left lower lobe and chest x-ray showed a small area of patchy infiltration in the left base as well as a 25 per cent increase in the transverse diameter of the heart. There were no clinical signs of congestive failure. The temperature subsided gradually with amelioration of symptoms and the patient was again discharged at his request to convalesce at home. Dicumarol was stopped because it was thought that the last three episodes requiring hospitalization had been caused by repeated episodes of pericarditis and not repeated myocardial infarctions. We felt that small episodes of intrapericardial bleeding from excessive anticoagulants conceivably may have been a factor in the last two episodes.

The patient has been followed closely since his last hospital admission. His condition improved steadily and on May 5, 1956, fluoroscopic examination revealed the heart to be of normal size and shape. On June 15, 1956, he had a mild episode of upper chest pain with elevation of temperature to 99 F. and white blood count of 12,100. An electrocardiogram taken that day did not show any new or further changes. The symptoms subsided in 24 hours with analgesics only to occur again for one day on June 18, 1956. Again an electrocardiogram showed no change and again the symptoms subsided in 24 hours with analgesics. Since then the patient has conducted an active business and has been completely asymptomatic. An electrocardiogram taken November 17, 1956, showed no change from that taken June 15, 1956 (Figs. 1, 2).

Discussion

It is of great importance to recognize the post myocardial infarction syndrome and to differentiate it from repeated myocardial infarction, because of the difference in the therapeutic and prognostic implications. Inasmuch as the post myocardial infarction syndrome does not represent further myocardial destruction, the outlook remains good and one can offer more reassurance to the already apprehensive patient and his family.

There is a similarity between the post myocardial infarction syndrome of Dressler and two other conditions also of unknown etiology—namely, idiopathic recurrent pericarditis and the post commissurotomy syndrome. In all three conditions the predominant symptom is anterior chest pain aggravated by breathing and motion. On occasion the pain may be so aggravated by inspiration as to interfere with breathing and cause dyspnea. The temperature, sedimentation rate and leukocyte count rise rapidly, usually within the first 24 hours after onset of pain. This is an important point in differentiating these three conditions from acute myocardial infarction or extension of a previous myocardial infarction, in which the temperature, sedimentation rate and leukocyte count rise on the second or third day concurrent with necrosis.

In the post infarction syndrome, as in benign pericarditis and the post commissurotomy syndrome, the electrocardiogram shows changes characteristic of pericarditis. The reciprocal ST changes and QRS changes of myocardial infarction are absent, which is another important point of differentiation. The serum transaminase remains normal, as it did in our patient on the fourth admission when this test first became available in our hospital. The physical and x-ray findings of pleuritis and pneumonitis, usually in the left hemithorax, are present frequently. The febrile episodes usually last three to seven days and multiple relapses are observed commonly. Constructive phenomena have not been reported.

Dressler believes that the post myocardial infarction syndrome is probably not due to superimposed idiopathic or benign pericarditis because frequency of this syndrome in patients recovering from myocardial infarction exceeded incidence of benign pericarditis in other patients in the same hospital during the same period.

Attempts have been made to implicate the Coxsackie B virus in the etiology of idiopathic recurrent pericarditis due to the resemblance to epidemic pleurodynia, or Bornholm's disease, in which some instances of pericardial involvement have been reported. To date, immunologic studies have been negative or nonconclusive. A tuberculous etiology is also unlikely because constrictive phenomena have not been described and the tubercle bacillus has never been recovered in this condition. The eosinophilia often seen in the pleural exudate has led some to consider an allergic mechanism. Eosinophilia, however, is a finding in the pleural exudate arising from many diverse conditions.

Dressler,[3] in a comparison of idiopathic pericarditis and the post commissurotomy syndrome, seems to favor a common rheumatic etiology for both conditions, although he freely acknowledges some of the shortcomings in that (1) there is usually no myocarditis associated with either condition, (2) the serologic tests for rheumatic activity are usually negative and (3) the course is usually benign.

With the extensive present day use of anticoagulants in the management of patients with myocardial infarction, one might assume that the repeated episodes of pericarditis could be due to oozing of blood into the pericardial sac. However, in the case reported this mechanism is unlikely because the first episode of pericarditis occurred before anticoagulants had been started and two minor episodes occurred after anticoagulants had been stopped.

In a subsequent report, Dressler[4] indicated that he has observed 10 more patients with this syndrome of whom 5 were treated with prednisone with excellent results. Our patient was not given prednisone but we mention this point as a possible mode of therapy. The response to prednisone also implies the nonspecific nature of this problem.

Summary

1. A case is reported which closely resembles the post myocardial infarction syndrome as reported by Dressler.

2. This syndrome must be differentiated from repeated or progressive infarction.

3. The condition is similar to idiopathic recurrent pericarditis and the post commissurotomy syndrome.

4. Etiology of this syndrome is unknown as yet. •

539 Medical Arts Bldg. (5) (Dr. Cohen).

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AMA Drafts New Law To Cut Poison Deaths

After a 15 months' study, the Committee on Toxicology of the American Medical Association announced January 29 that it has formulated a broad and encompassing model law for the precautionary labeling of hazardous substances in commercial, household, and industrial chemical products.

Speaking before the Section on Food, Drug & Cosmetic Law of the New York Bar Association, Bernard E. Conley, Ph.D., Chicago, secretary of the AMA committee, said the proposed legislation is intended as a model for uniform laws to require declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products used in the home and elsewhere.

"The proposed model law," Conley said, "was drafted after an exhaustive review of existing statutes revealed a hodge-podge of local regulations for the labeling of chemicals."

The law is directed against those hazardous substances defined as toxic, irritating, sensitizing, corrosive, flammable, explosive, or radioactive under customary or reasonably anticipated conditions of handling and use.

The law, as drafted by the AMA committee headed by Torald Sollmann, M.D., Cleveland, Ohio, would:

—Require the labeling of all chemical products containing hazardous substances which are not now regulated.

—Require the same labeling standards to apply to chemicals for export as those for domestic consumption, thereby obviating the common complaint that less-than-standard products are sold to foreign customers.

—Prohibit re-use of food and drug containers bearing their original labels.

—Require identification and warnings for strongly sensitizing chemicals which cause allergic or inflammatory reactions in living tissue on contact.

Conley said a significant departure in drafting the new law was deletion of the word "poison" from the bill's provisions. This decision was reached, he said, after surveys showed a wide variation in existing legal limits for poison and a lack of agreement among scientists on a definition of the term.

Bonadoxin in Nausea and Vomiting of Pregnancy

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AND
R. J. Lowden, M.D.
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Although maternal deaths or interrupted pregnancies resulting from nausea and vomiting are now rare, a high percentage of pregnant women are affected by this undesirable condition. Usually of mild nature, the characteristic symptoms occur in the fifth or sixth week of pregnancy and subside ordinarily after three months. However, a large number of women experience moderate to severe nausea and vomiting throughout their pregnancy and create a serious problem for the physician.

Predisposing factors such as psychogenic disorders, allergy, nutritional deficiencies, and endocrine disturbances have been considered in the determination of the etiology, but up to the present time the origin of this condition is unknown. A large variety of preparations have been used in the past including progestin,[1] menadione combined with ascorbic acid,[2] adrenal muscular pyridoxine combined with suprarenal cortex,[5] all of which relieved the patients partially, but not entirely, from their symptoms. Recently, a number of clinical investigators,[6-9] have used Bonadoxin in the treatment of various degrees of nausea and vomiting in pregnancy. Their reports reveal a very high percentage of relief, ranging from 88 per cent to 95.7 per cent. The highest percentage of response (95.7 per cent) was recorded in a study of 287 patients, the lowest (88 per cent) in a series of 100 patients. Stimulated by these reports and encouraged from our own preliminary clinical investigations, we initiated a study of 76 pregnant patients, using Bonadoxin* in all cases.

Materials and Methods

The antiemetic preparation used in this study is a combination of meclizine hydrochloride 25 mg. and pyridoxine hydrochloride 50 mg. Age of the 76 patients treated ranged from 18 to 36. Need for therapy usually occurred one and one-half to four months after the patients' estimated date of conception.

Three dosage schedules were followed (see table 1). This plan facilitated management and allowed adjustments of medication according to severity of symptoms and time of their occurrence. Thus, patients with light to moderate nausea and vomiting were given 1 tablet at bedtime for 15 to 25 days, which was usually sufficient. The other group of patients, with pronounced nausea and vomiting, received 2 tablets at bedtime for 3 to 5 days, after which they reported that their symptoms were less severe. Then, 1 tablet before retiring for 7 to 36 days was prescribed depending on response. Several women had to be treated according to the time of occurrence of their nausea and vomiting. They were given 1 tablet in the morning and 1 at night for 3 to 5 days. Then, after they responded favorably, the dosage was reduced to one tablet at bedtime for 15 to 30 days. In addition to the tablets, four patients were given 1 to 3 multiple vitamin-mineral capsules daily, and three patients received Nembutal as conjunctive medication. Cortisone, given parenterally or orally, was administered to another six patients in conjunction with the antiemetic preparation.

Table 1. Bonodoxin Dosoge Schedule for Vorious Degrees of Nousea ond Vomiting in Pregnoncy.

Moderote Symptoms	Pronounced to Severe Symptoms	Dosoge According to Time of Occurrence of Symptoms
1 tablet Q.H.S. for 15 to 25 days.	2 tablets Q.H.S. for 3 to 5 days, then 1 tablet Q.H.S. for 7 to 36 days.	1 tablet A.M., 1 tablet P.M. for 3 to 5 days; then, 1 tablet H.S. for 15 to 30 days.

The senior author of this paper was a pharmacist and taught pharmacy before entering medical school. Ed.

*Supplied by Medical Department, J. B. Roerig and Company (Div. Chas. Pfizer & Co., Inc.).

Metabolic Effects of Meclizine and Pyridoxine

Meclizine, one of the two constituents in the formula, is an antihistaminic. Its structural formula, as can be seen in figure 1, is unique in that it differs from other closely related antihistaminics by containing three benzylic rings, rather than two. Toxicity studies in animals revealed that

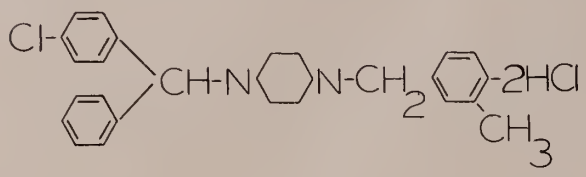


Fig. 1. Chemical formula for meclizine dihydrochloride.

meclizine is considerably less toxic than other antihistiminics used clinically, including dimenhydrinate. Its antihistaminic activity, determined by the duration of effective protection of guinea pigs against intravenously injected or nebulized histamine, was found far superior to comparable doses of other antihistaminics in current use.

Clinically, Verdonk used meclizine in 237 patients with allergic disease[10] and found its tolerance to be excellent on a daily dose of 25 mg. to 100 mg., in single or divided doses. Other beneficial actions of meclizine are its anticholinergic properties and freedom from side reactions, such as blurred vision, dry mouth and throat, and hypotensive effect.[11,12] Its therapeutic action in the nausea and vomiting of pregnancy is believed to be by blocking the nausea-vomiting reflex, either by direct inhibition of the emetic trigger zone in the pons or by depression of the labyrinthine apparatus or both. A definite advantage of the antihistaminic is its prolonged duration of action—up to 24 hours—after administration of a single 25 to 50 mg. dose.[13] This latter property is especially desirable, since it eliminates the inconvenience and annoyance of frequent doses.

Pyridoxine (vitamin B_6) supplementation plays an important role in the enzyme systems governing the metabolism of fats, carbohydrates, and amino acids.

In an intracellular process, when pyridoxal phosphate combines with specific protein enzymes, this combination can act as transaminase, decarboxylase, and desulfurase. All of these reactions are reversible.[14] As a result of these biochemical processes, vitamin B_6 provides raw material for the tricarboxylic acid cycle (Krebs cycle) which is one of the essential energy sources in the body, and the main sequence of carbohydrate oxidation in the body tissues.

Clinically, the necessity of pyridoxine supplementation in pregnancy is pointed out by Wachstein and Gudaitis.[15] In their article they discuss two ways of determining pyridoxine deficiency in pregnant women: (1) by the oral administration of 10 Gm. dl-tryptophan to subjects deficient in vitamin B_6, and (2) by a vitamin B_6 load test in which 25 mg. of oral pyridoxal hydrochloride is given. In the former test an abnormal metabolite, xanthurenic acid, was excreted in the urine in appreciable amounts after administration of dl-tryptophan. This abnormally high concentration of xanthurenic acid may be caused by a pyridoxine deficiency occurring in pregnancy, resulting in an incomplete metabolism of trytophan—one of the essential amino acids. The chemical structure of pyridoxine is shown in figure 2.

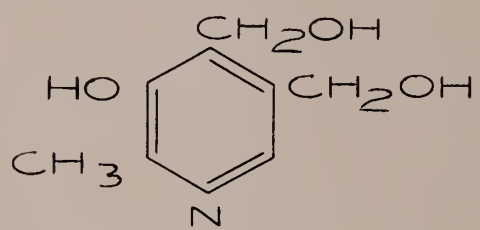


Fig. 2. Chemical formula for pyridoxine.

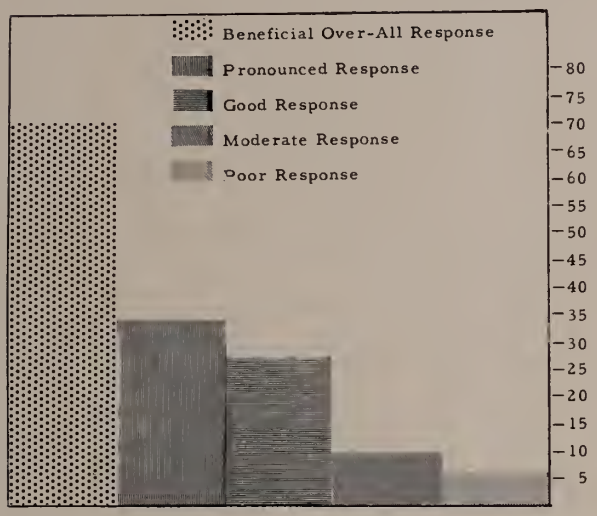
In the latter test in which 25 mg. of vitamin acid in full-term normal and toxemic women was found to be smaller than in the nonpregnant control subjects. Thus, pregnant women retain administered vitamin B_6 to a much larger extent than nonpregnant women.

The enzymatic role of pyridoxine was studied by Glendening, Cohen, and Page,[16] who investigated the effect of pyridoxine supplements on transaminase activity of fetal and maternal tissues. Their data revealed that the addition of 10 mg. of vitamin B_6 to the daily diet of pregnant women for several weeks resulted in significant increase in transaminase activity. They also found that the transaminase system of infants is well supplied with pyridoxal or pyridoxamine cofactors, probably at the mother's expense. The authors conclude that the data are compatible with the view that pyridoxine supplementation is desirable in human pregnancy.

Results of Therapy

Results of this study are shown graphically in Chart I. Combining all positive responses, an overall benefit from Bonadoxin in 70 (92.1 per cent) of 76 patients treated was observed.

Chart I



Results of Benadoxin therapy in 76 pregnant potients.

As can be seen from the different dosage schedules (table 1), treatment was individualized, and dosages were adjusted according to the response of the patients. At least three patients, however, responded almost immediately to the preparation. They had been vomiting continuously prior to treatment. The following criteria were used for the evaluation of the therapeutic action: A *pronounced* response was recorded when the patient responded to therapy within one to two weeks, with no recurrence of symptoms; therapy was continued to 25 days for prophylactic purposes; a *good response* was recorded when the patient responded within two to three weeks, but slight nausea occurred occasionally and dosage had to be increased to alleviate all symptoms; and, a *poor response* was recorded for patients who did not, at any time, respond to therapy.

All women accepted and tolerated the tablets well. There was no correlation between age of the patients and their response to the preparation. Two patients reported a potentiation of therapeutic effect when Nembutal was given in conjunction. Cortisone administered to three patients who responded poorly to the antiemetic preparation had no beneficial action, and made one patient feel even worse.

It is recommended to continue administration of Bonadoxin for some time even when the patient has not responded after three to four days. Some of these patients seem to need reasonable time to adapt themselves to the preparation which probably accounts for their delayed response.

Summary

1. Bonadoxin is an antiemetic preparation consisting of two therapeutic agents: meclizine dihydrochloride and pyridoxine hydrochloride.

2. This preparation was used in 76 pregnant patients with nausea and vomiting over a period of one to eight weeks; severe cases required prolonged or individualized treatment.

3. The results indicated an overall response in 70 (92.1 per cent) of 76 patients treated. Specifically, 34 women experienced pronounced relief; 27 had a good response; 9 a moderate response, and 6 patients did not benefit from treatment. No side reactions were observed in this clinical study. •

1024 Medical-Dental Bldg. (1) (Dr. Codling).

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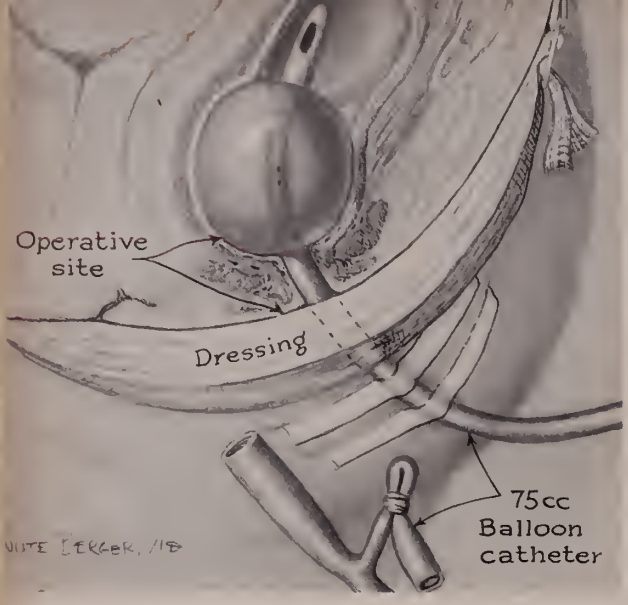
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Control of Anorectal Hemorrhage with Balloon Catheter

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The following brief case report illustrates a potential situation after any anorectal surgery:

Nine days following resection of combined hemorrhoids, a woman aged 52 was returned to the hospital with acute, massive rectal hemorrhage. She was apprehensive, pale and perspiring freely. On the toilet she had evacuated a large amount of fresh blood and clots. Her erythrocyte count was 3.5 million, hemoglobin 10.6 Gm. and hematocrit 32.5.

The bleeding was controlled by simple means—the insertion of a 75 cc. balloon (Bardex) catheter into the rectum with traction and counter pressure. She was discharged two days later.

This simple method for control of anorectal bleeding was reported by me previously and its usefulness has since been confirmed by Israel's report.[1,2] Further experience has shown a catheter of 75 cc. capacity to be better than the 30 cc. size originally recommended. The smaller size is occasionally expelled prematurely.

In more detail the procedure is this:

The patient is placed in a lateral position and, after testing, a well lubricated 75 cc. catheter is inserted about 4 inches into the rectum. No anesthesia is necessary. The balloon is inflated with 60 cc. of air or water and the inflation tube closed. Parenthetically, for inflation purposes, a 1 ounce rubber infant syringe works better than the glass-plunger type.

Downward traction is exerted on the catheter so that pressure is brought to bear on the anorectal ring; this is maintained by taping the catheter to the buttock. Counter pressure from below is exerted by means of a perineal pad and T-binder.

A sponge is placed over the end of the catheter so that further bleeding, if it occurs, can be observed. The catheter can be kept clear with gentle saline irrigations. Escape of gas and fluid through the catheter reduces the stimulation of the bowel movement reflex and the balloon is well tolerated by patients. The balloon is deflated and removed in 24 hours.

Postoperative hemorrhage is one of the chief complications of anorectal surgery and may occur within a few hours or as late as 10 days after operation. It occurs at inopportune times and places, and can be hazardous. Bleeding is usually from one or more marginal vessels at the operative site and, when severe, usually saturates the peri-anal dressings. Frequent inspection of the dressings during the immediate postoperative period should be specified as an order on the patient's hospital chart.

In the past it has been necessary to re-anesthetize the patient to locate and ligate the bleeding point. This is a disturbing procedure with additional risk in terms of additional trauma, danger of infection and re-anesthetization under circumstances which may be far from ideal. The catheter method is non-traumatic and effective. The catheter takes little space in one's bag and can be used equally well in the hospital or home. •

539 Medical-Dental Bldg. (1).

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Male Infertility

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Infertility of a couple means failure to establish pregnancy after one year of normal marital behavior. Formerly regarded as essentially a woman's problem with little responsibility attached to the husband, it is now considered one in which the husband is at fault nearly as often or even more often than the wife.[1] Both partners, of course, should be investigated. This concept is achieving wider acceptance by patients and physicians.

In a group of 70 males whose wives were pronounced gynecologically normal, I have found impairment of the fertility index in 45. This took the form of low count, a high percentage of abnormal forms, or poor motility sometimes accompanied by chronic prostatitis (other cases of good motility were also accompanied by prostatitis). The figure does not imply that in all cases of infertility the male partner is more frequently at fault than his wife. I was not referred many husbands of women whose infertility had been accounted for. The figure does suggest the male partner is *often* at fault in a childless marriage.

In reviewing minimal normal concepts of male fertility index we find variation of opinion. Some believe sperm motility to be more important than sperm count provided the count is at a certain minimal level. McCleod[2] feels that as the percentage of morphologically normal cells increases there is an increasing fertility potential. He suggests it is unnecessary to raise a count of 20 million to 60 or 70 million per cc. if motility and morphology are normal. Quantity is utilized by some to classify high fertility as more than 185 million active sperm, relative fertility as 80 to 185 million active sperm, and subfertility as less than 80 million active sperm in the ejaculate. A widely accepted classification of minimal standards for male fertility includes volume of 2.5 cc. morphology of 80 per cent normal forms, motility of 38 per cent active sperm, and a count of 20 million active sperm per cc.

Absolute sterility is found in only a small per cent of infertile males. Common causes are undescended testes, failure of development of testicular germinal epithelium, mumps orchitis, atrophy of germinal epithelium secondary to radiation, atrophy of both testes secondary to hernia repair, congenital absence of epididymis or ductus defferens or both, and bilateral occlusion of ductus defferens, usually due to gonorrhea.

Temporary sterility may be produced hormonally or by fever. Germinal epithelium is sensitive to environmental changes, and heat inhibition (104 F. for 90 minutes) has been shown to depress the sperm count for a variable period of two to four weeks followed by slow return to normal.[2] Therefore sperm studies should take into account any recent febrile illness. Interestingly, tests on athletes have demonstrated that extreme fatigue does not affect sperm counts.

Methods of Diagnosis

Variety in frequency of intercourse in healthy adults is considerable, ranging from semi-monthly to almost nightly in this series. There is apparently no familial tendency for infertility; usually brothers and sisters are quite fertile. These 70 husbands of infertile marriages have habits of diet, work, and recreation in no way unusual or abnormal. Nothing remarkable was obtained from their medical or social history other than their failure to impregnate their wives.

Physical examination always included a prostatic massage, repeated in a few days if the

microscopic picture was normal. Chronic prostatitis was frequently associated with poor motility. In these instances, treatment was instituted. It consisted of massages at five day intervals, chemotherapy, and argyrol instillations in cases having urethral discharge. After 5 to 10 massages the microscopic picture usually improved to less than 20 wbc/hpf.

Sperm examination is done after a five day period of abstinence. The specimen is collected in a dry glass jar either by masturbation or coitus interruptus, kept at room temperature, and examined within three hours. A condom is never used because of its spermicidal effect. Volume, count, morphology (appearance of stained fixed cells), motility, motility after four hours and after 24 hours, are reported. The counts of highly fertile males remain constant on reexamination. Repeat counts in this group are probably unnecessary. The counts of relatively fertile and subfertile men are more variable, making reexamination necessary. Germinal epithelium is similar to bone marrow in producing characteristic morphology in all specimens from the same individual under normal conditions.

In cases of no sperm in the ejaculate it must be determined whether there is obstruction or lack of production. Michelson[3] reports on hyaluronidase concentration in the semen as a test for patency of the vasoepididymal ducts. This enzyme is elaborated in the testes. Its presence in semen without spermatozoa suggests there is incomplete degeneration of germinal epithelium and indicates patency of the vasa and epididymal ducts. Enzyme substrates are available to do this test, and it may be of significance if therapy advances beyond its present state. Testicular biopsy is of help in planning therapy.

Further investigation of patients presenting azoospermia is done in the hospital. Under spinal or general anesthesia a panendoscope is passed into the prostatic urethra and attempts are made to catheterize the ejaculatory ducts located on either side of the verumontanum. If catheters can be entered into these orifices, radiopaque solution is injected and x-rays are made. The tortuous seminal vesicles and the vasa are seen on the film. An obstruction of the vas can thus be visualized. Often retrograde injection is unsuccessful because of technical problems in finding and catheterizing these ducts. In any event, the next step is surgical exposure and exploration of the scrotal contents bilaterally. If vaso-grams were not successfully made, a 22 gauge needle is inserted into the vas near its origin, radiopaque solution injected and x-rays taken to outline the vas and seminal vesicles. The presence of dye in the vesicles (Fig. 1) indicates a patent vas.



Fig. 1. Retrograde vaso-seminal vesiculography (injection of vas near vasoepididymal junction; x-ray demonstrates patency with dye reaching urinary bladder).

(If obstruction were found, resection and end-to-end anastomosis would be performed, after first demonstrating a patent proximal segment.)

Needle aspiration of the upper pole of the epididymis must now be examined microscopically. Even if an obstruction of the vas has been discovered, there may also be inflammatory obstruction of the epididymis in its globus minor, the portion most often involved by infection. If spermatozoa are seen in the secretion aspirated from the globus major of the epididymis in an azoospermic patient, then the patent vas deferens is anastomosed to this structure by incising into an epididymal duct and joining both channels side to side.

The next step is testicular biopsy, performed whether or not sperm were present in the epididymal aspiration. This is done to better evaluate spermatogenic function of the gonad and to help decide on the use of hormonal therapy. After inserting a sliver drain and closing the scrotal incision on one side, the procedure is repeated on the other side.

Therapy

Androgen therapy is based on the rebound phenomenon after suppression. Sometimes this does not happen. McDonald and Hechel[4] report

a series of 93 cases in which 28 (38 per cent) rebounded at least 50 million per cc. over pretreatment level and 20 pregnancies ensued. Testosterone propionate was given in 50 mg. doses intramuscularly three times weekly. Forty-five did not rebound. Biopsies showed marked germinal cell atrophy in these cases and indicated that they were unsuitable for this therapy. They feel that testosterone is indicated when biopsy reveals disorganized spermatogenesis or incomplete germinal cell arrest, and is of no value if biopsy shows germinal cell atrophy or extensive areas of regional fibrosis.

Estrogens have been used in small doses (0.1 mg. stilbestrol daily) to stimulate spermatogenesis. Herrold[5] reports an increase in the sperm count of 20 of 39 patients. Larger doses of estrogen[6] act by pituitary depression, which leads to inhibition of testicular hormone production. Two or three months after withdrawal, spermatogenesis returns, often with improved sperm output.

Pregnenolone (the 3-hydroxy analogue of progesterone) is thought to enhance fertilizing capacity of sperm by changes in their enzyme systems or by stimulating fructose secretion. Turly and Shaw[7] report 40 cases treated with 50 mg. intramuscularly weekly, increasing the dose by 50 mg. each month for three months. Improvement of sperm count and motility was observed in 37.5 per cent and pregnancy occurred in 20 per cent of these cases within one year.

Anterior pituitary hormones which affect the testes are of two types. FHS (follicle stimulating hormone) appears to act mainly on spermatogenic epithelium, and L.H. (luteinizing hormone) acts principally on interstitial cells. Their increased activity results in stimulation of accessory genital structures. A combination causes more spermatogenesis than FSH alone. Apparently, chorionic gonadotropins (prepared from pregnant mares' serum) are not as effective as pituitary gonadotropins (prepared from beef hypophyses). Theoretically, pituitary gonadotropins should be excellent for spermatogenesis, but results are inconsistent and often disappointing. Tyler[8] suggests a regimen of 4 to 5 cc. daily for two weeks and reports good results in some instances with this high dose.

Hep-Forte is a nutritional supplement advocated by its manufacturer (Marlyn) in the treatment of deficiencies caused by or associated with disordered hepatic function. This includes the nebulous state of estrogen-androgen imbalance causing relative hyperestrinism which is accompanied by impaired spermatogenesis. Evans[9] claims that a diet may be adequate for body growth and yet grossly inadequate for normal reproductive physiology. Inability of the liver to inactivate estrogens has been shown to occur in the absence of morphologic changes.[10] In contradistinction to this impairment, the liver does not lose ability to destroy androgen in B-vitamin deficiency states. Therefore, a serious estrogen-androgen imbalance may result (Glass[11]). Glass and Lazarus[12] report increased fertility in their series, treated with 15 capsules of this medication daily.

Cytomel (l-triiodothyronine), a thyroid-like substance, is claimed to improve cellular metabolism in cases where decreased metabolism originates in the peripheral tissues due to faulty ultilization of thyroxine. L-triiodothyronine is the effective form into which thyroxine must be converted in the cells to be effective. Farris[13] reports 5 pregnancies occurring in previously childless couples during treatment of 16 subfertile husbands with 5 to 25 mcg. daily. In each of these cases the semen picture showed definite improvement in motility and count at the time of conception. Within several weeks following cessation of medication the sperm indices fell to pretreatment levels.

Clinical Study

Effects of Cytomel were studied in 14 men, between 25 and 37 years of age, who had failed to impregnate their wives despite normal attempts for at least two years. All female partners had been examined and declared capable of becoming pregnant. Cytomel was used for four weeks. Daily dose for the first week was 5 mcg. It was increased 5 mcg. each week. Sperm studies were done before and after treatment.

A fifteenth case was excluded from the study because he failed to return for post-treatment examination after his wife had become pregnant. In preliminary tests he had volume of 8 cc.; count, 66 million; motility, 60 per cent initially and 35 per cent after 24 hours; morphology, 30 per cent abnormal forms.

There was improvement in sperm count in seven patients (table 1). In case 1, with increase of 33 per cent in count, there was also improvement in motility and morphology. Case 2 had only insignificant improvement in count which is consistant with his failure to improve motility

and morphology. There was 100 per cent or more improvement in count in cases 3, 5, 6, and 7 but changes in morphology and motility were erratic. Case 6 was continued on Cytomel and showed complete aspermia after four months.

Case 4 improved his count per cc. approximately 50 per cent but lost total count because of decrease in volume. His pretreatment total, including only motile sperm, was 34.8 million and the post-treatment count, 19.8 million. His high percentage of abnormal forms was not changed appreciably and still further reduced the effective total.

Reduction in counts per cc. occurred in half the cases in this series and in 4 the counts dropped markedly. Effects on morphology and motility were variable. Impairment of motility was noted more frequently than low count and may be of more significance as an index of infertility. Abnormal morphology also was noted more frequently than low count.

Six cases in the series had chronic prostatitis. In only one of these was motility improved by Cytomel. Only 2 of the 6 had more than 50 per cent motile forms. However, the 2 cases of the series with lowest motility did not have prostatitis.

No pregnancies occurred in the wives of the 14 men in this series. The fifteenth case, who did impregnate his wife, was excluded because he did not report for post-treatment examination.

Table 1.

Case	Age	Count (million per cc.) Before	Count (million per cc.) After	Abnormal Forms % Before	Abnormal Forms % After	Motility % Before	Motility % After	24 Hr. Motility % Before	24 Hr. Motility % After	Volume cc. Before	Volume cc. After
1.	37	100	134.8	45	30	50	60	10	30	8	5
2.*	32	86	90.4	20	15	40	40	20	20	2	3
3.*	34	23.4	49.6	35	50	70	60	40	1	5	10
4.	33	23.2	33	40	45	50	60	10	10	3	1
5.	24	15.7	120.4	75	15	60	80	25	50	5	5
6.	31	8.6	42	50	40	10	10	0	0	3	5
7.	28	6	27.2	40	50	10	40	0	0	3	3
8.*	33	20.8	18.2	90	50	15	10	0	0	1	1
9.*	24	239	201	30	40	50	80	20	10	1	3
10.*	25	37.8	22.4	45	55	40	25	1	0	2	4.5
11.	28	78	45.4	50	17	70	70	0	30	4	3
12.	31	139	28.4	50	45	70	90	0	0	1	2
13.*	27	49	4.6	40	50	75	70	25	10	5	3
14.	29	7.8	under 1000	80	90	30	40	1	20	5	5

*Chronic prostatitis.

Observations reported by Culp[14] in 1950 on a series of 200 cases of infertility are of interest. Incidence of pregnancy among 78 patients under therapy (thyroid, vitamin E, testosterone, and pituitary hormone in varying combinations) was the same as in 85 untreated cases.

It seems a reliable spermatogenic drug is not yet available. Of importance is the mental and physical health of our patients, which may be improved by various hormones, nutritional supplements and by our encouragement. •

626 Stimson Building (1).

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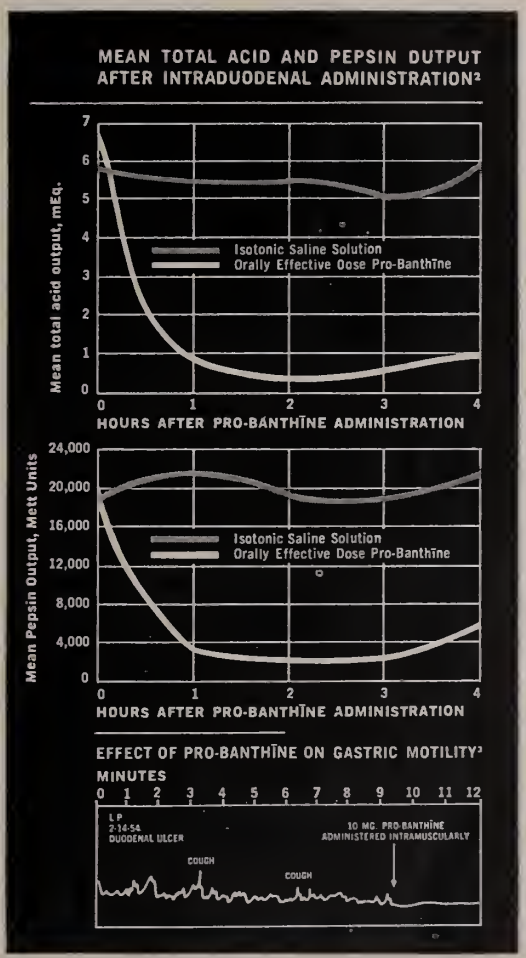
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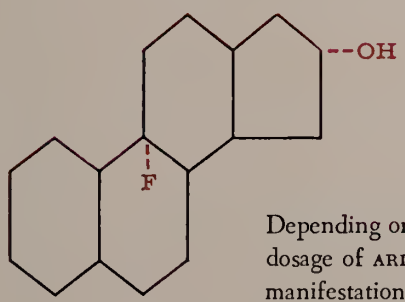
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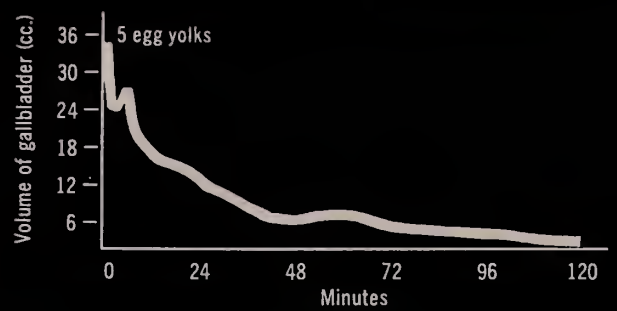
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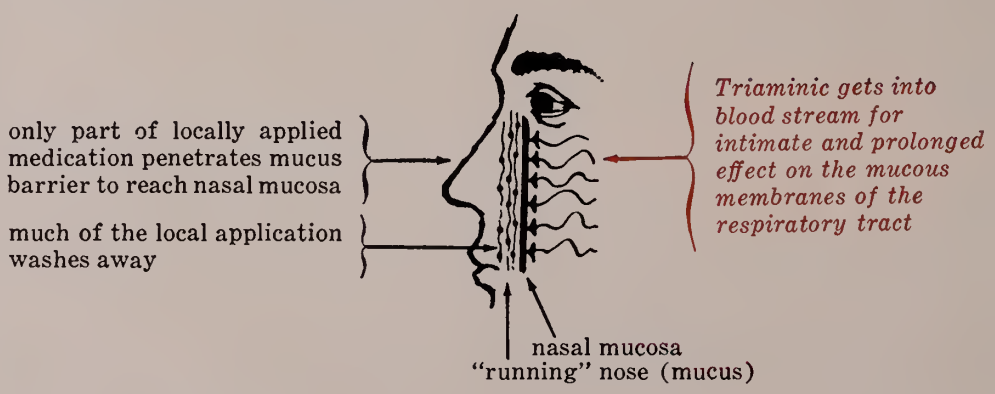
respiratory congestion orally

"This affords opportunity for shrinkage in areas that could not be approached by sprays, drops or actual topical applications."

—Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Comparison of action of topical decongestants and an orally administered decongestant

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Duration of relief is brief	*Keeps nasal passages clear 6 to 8 hours*
Decongestion often followed by secondary congestion which may be equal to or even worse than the original condition	*Secondary congestion does not occur*
Local overtreatment may cause pathological changes in nasal mucosa	*No pathological changes in nasal mucosa*
Patients frequently experience "nose drop addiction"	*The "nose drop addiction" phenomenon does not occur*
Much of the medication is washed away by nasal mucus. Mucus often forms a barrier between the medication and the nasal mucosa	*Not affected by nasal mucus. Gets into the blood stream so that it has intimate and prolonged effect on nasal mucosa*



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respiratory congestion orally

relief in minutes... lasts for hours

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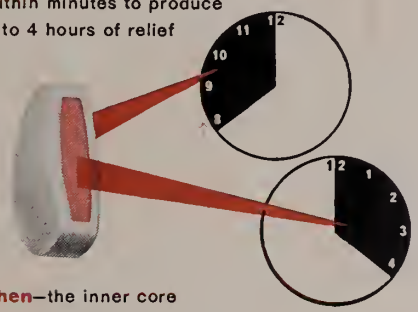
With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours—provides "around-the-clock" freedom from congestion on just three tablets a day

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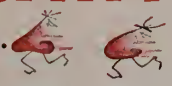
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Pheniramine maleate	25 mg.

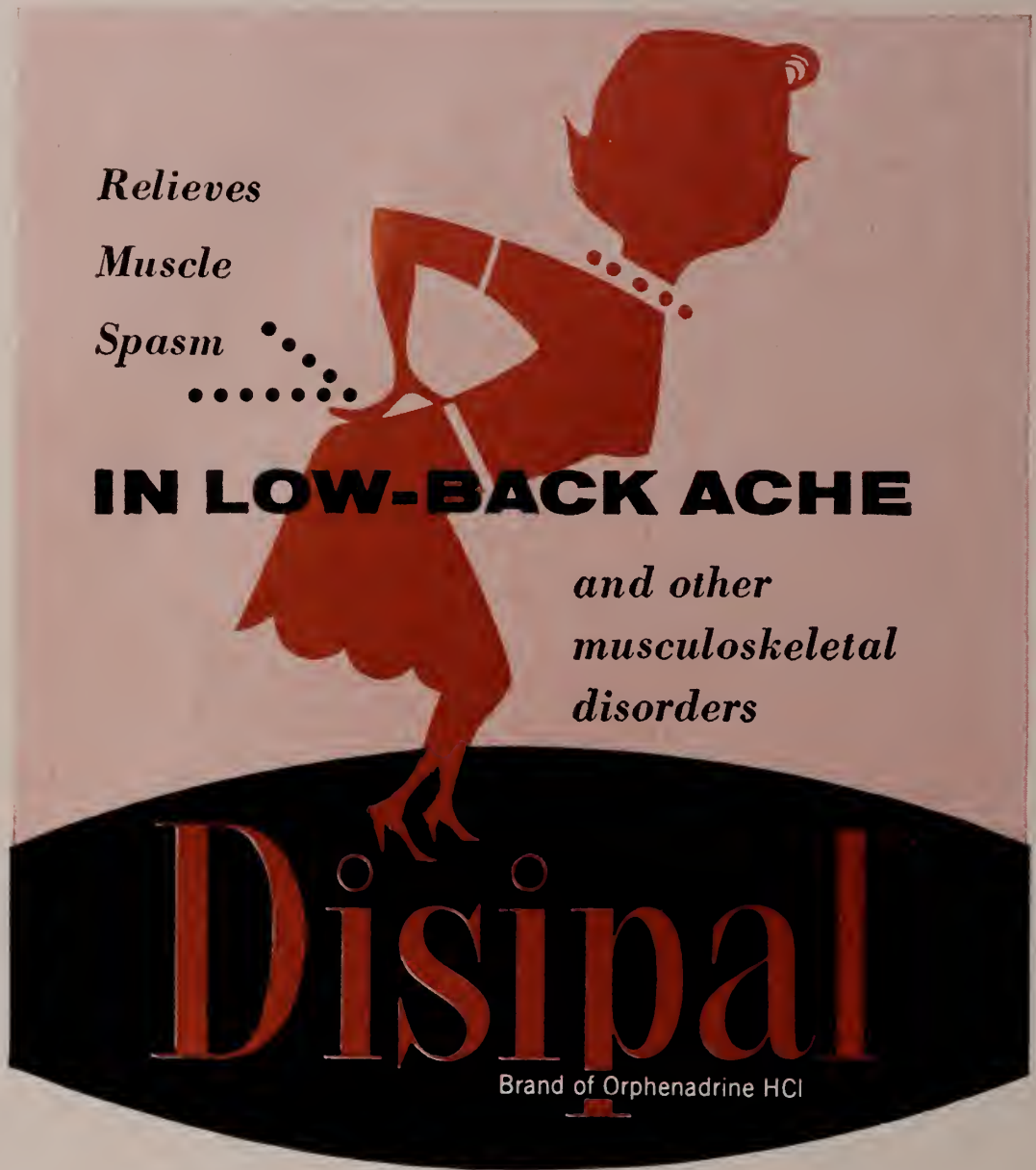
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stop running noses...  *and open stuffed noses orally*

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In Parkinsonism

Highly selective action...energizing against weakness, fatigue, adynamia and akinesia...potent against sialorrhea, diaphoresis, oculogyria and blepharospasm... lessens rigidity and tremor... alleviates depression...safe... even in glaucoma.

*Trademark of Brocades-Stheeman & Pharmacia. U.S. Patent No. 2,567,351. Other patents pending.

Relieves Spasm, Pain, and Depression too

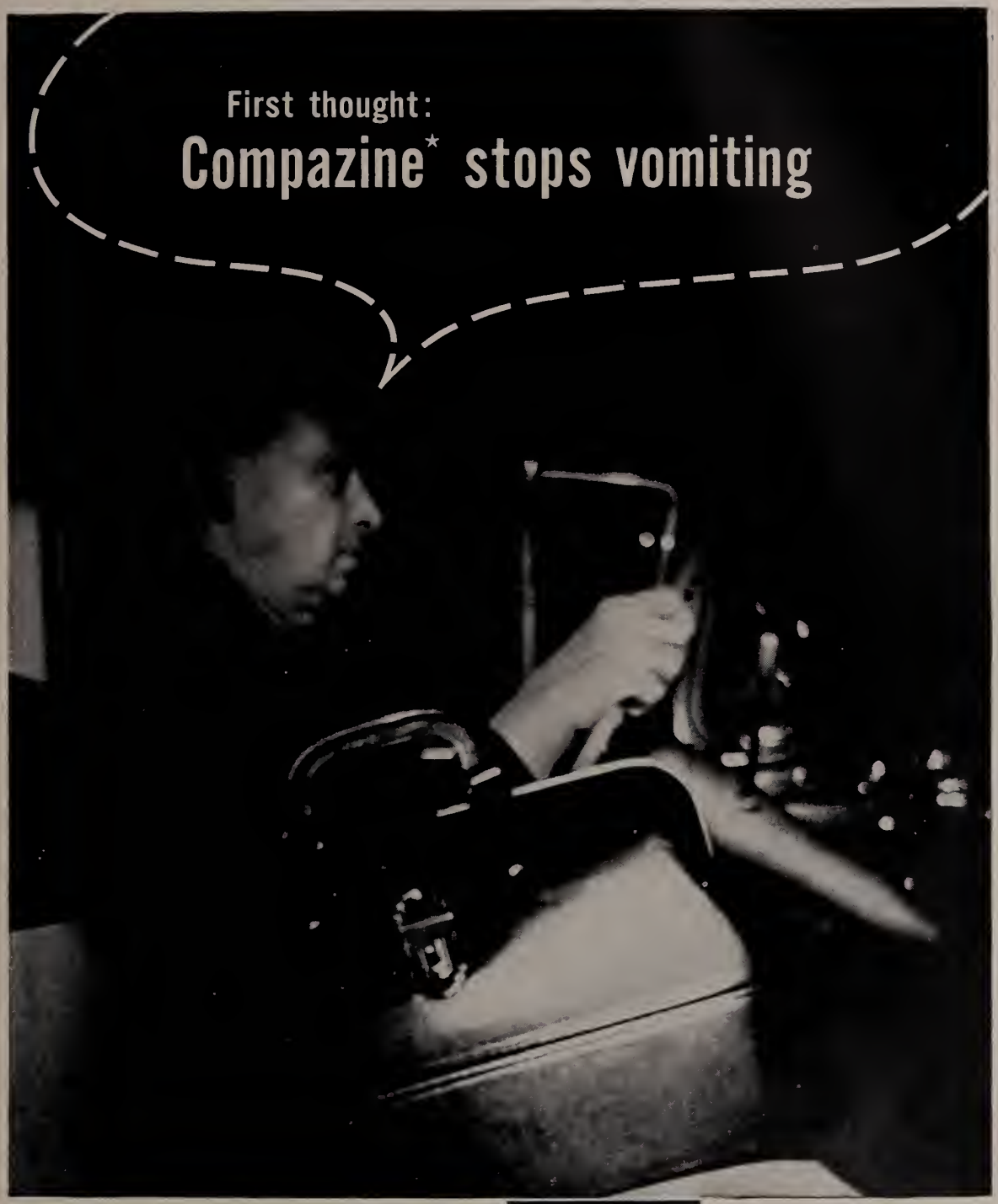
In muscle spasm due to sprains, strains, herniated intervertebral disc, fibrositis, noninflammatory arthritic states and many other musculoskeletal disorders, the first demand is for relief. Disipal fills this need. It is quickly effective in skeletal muscle spasm almost regardless of origin. Its mood-alleviating effect braces the patient against the depression so often accompanying severe pain of any type.

Dosage: 1 tablet (50 mg.) t.i.d.

Riker LOS ANGELES

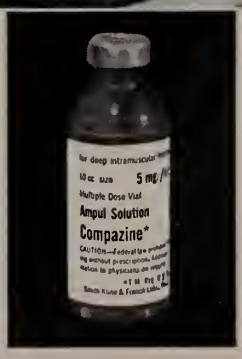
First thought:

Compazine* stops vomiting



new! multiple dose vials

for immediate effect—
always carry one in your bag



Also available:
tablets, ampuls, Spansule®
sustained release capsules,
syrup and suppositories.

*T.M. Reg. U.S. Pat. Off. for prochlorperazine, S.K.F.

Smith Kline & French
Laboratories, Philadelphia

new
and
potent
oral
anticoagulant

LIQUAMAR®

(BRAND OF PHENPROCOUMON)

'ORGANON'

Tailored to give the most satisfactory results in all classes of patients

LIQUAMAR offers these clinical advantages in the treatment of thrombosis and embolism:

- marked and prolonged anticoagulant activity
- stable and predictable prothrombin responses
- ease and certainty of control
- no nausea, vomiting, or vasomotor instability
- low incidence of bleeding
- low daily maintenance dose
- low cost
- proven effective in thousands of patients

SUPPLIED: Oral tablets, double-scored, each tablet containing 3 mg. of phenprocoumon. In bottles of 100 and 1000.

WRITE FOR DETAILED LITERATURE

Organon inc. ORANGE, N.J.

in toxemia
of
pregnancy

Diamox*

ACETAZOLAMIDE LEDERLE

nonmercurial
diuretic

DIAMOX effectively produces weight loss through fluid loss in pregnant patients with visible or occult edema, pre-eclampsia, hypertensive disease, and decompensated heart disease.[1]

DIAMOX was administered to 106 pregnant patients, on regular or prescribed diets. The majority were ambulatory and all either had more than the normal amount of visible edema and/or gained more than the average of 1 kg. per week. Response with DIAMOX showed that edema fluid can be removed effectively: 500-2000 Gm. in 24-72 hours, and as much as 11 kg. within 7 days.

A highly versatile diuretic, DIAMOX is particularly advantageous in prenatal management. Lack of taste, ease of administration, and lack of renal and gastrointestinal irritation make its use simple and relatively free of complications.

Supplied: Scored tablets of 250 mg.; Syrup containing 250 mg. per 5 cc. teaspoonful; Ampuls of 500 mg. for parenteral use.

[1]Dieckmann, W. J.; Harrod, J., and Monardo, A.. The Treatment of Preeclamptic Edema with Acetazolamide (Diamox). *Am. J. Obst. & Gynec.* 73:789-800, 1957.

*Reg. U.S. Pat. Off.

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N.Y.



when you encounter

- respiratory infections
- gastrointestinal infections
- genitourinary infections
- miscellaneous infections

for all tetracycline-amenable infections, prescribe superior

SUMYCIN

Squibb Tetracycline Phosphate Complex

In your patients, **SUMYCIN** *produces:*

1. Superior initial tetracycline blood levels—faster and higher than ever before—assuring fast transport of adequate tetracycline to the site of the infection.

2. High degree of freedom from annoying or therapy-interrupting side effects.

Supply:	*Tetracycline phosphate complex equiv. to tetracycline HCl (mg.)*	*Packaging:*
Sumycin Capsules (per Capsule)	250	Bottles of 16 and 100
Sumycin Suspension (per 5 cc.)	125	2 oz. bottles
Sumycin Pediatric Drops (per cc.—20 drops)	100	10 cc. dropper bottles

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Oregon

OREGON STATE MEDICAL SOCIETY
1115 S. W. Taylor Street
Portland 5, Oregon

ANNUAL MEETING
September 3-5, 1958
Portland

President, Vern W. Miller, M.D., Salem
Secretary-Treasurer, Max H. Parratt, M.D., Portland
Executive Secretary, Mr. Roscoe Miller, Portland

Diuretic and Anti-Hypertensive Drugs Subject of March 28 Symposium at UOMS

The Council of the Oregon State Medical Society has approved an all-day postgraduate symposium on Diuretic and Anti-Hypertensive Drugs which will be held Friday, March 28, 1958, in the Auditorium at the University of Oregon Medical School, Portland.

A social hour and banquet will be held in the evening at the Hotel Multnomah. Guest speaker will be Robert Wilkins, Boston, Mass., who will present a paper on Diuretics in the Treatment of Hypertension.

The symposium is made possible by the financial assistance of Merck, Sharp and Dohme Laboratories.

PROGRAM

Physiology, Pathology and Pharmacology

Morning

Chairmen:
Frank Underwood and Hance Haney

9:00 Introductory Remarks: Ralph Benson, N. David
9:10 Renal Transport of Water — William D. Blake
9:40 Effect of Dichlorphenamide (Carbonic Anhydride Inhibitor) on Ocular Dynamics — John E. Harris
10:00 Pathogenesis of Toxemias of Pregnancy — Charles F. Montague
10:30 Intermission (coffee served in lobby)
10:45 Renal Transport of Electrolytes — Robert Pitts, New York
11:15 Mechanisms of Action of Chlorothiazide (Diuril) In Comparison With Other Diuretics — Karl Beyer, West Point, Pa.
12:00 Discussion and Questions (Panel of above speakers and chairmen)

Luncheon

12:30 University of Oregon Medical School Cafeteria
Program: Reports on Clinical Trials With Chlorothiazide
Moderator: Francis Chamberlain, San Francisco
Speakers: Homer Rush, William Galen and Melvin Breese

Clinical Management

Afternoon

Chairmen:
Homer Rush and Phillip Selling

2:00 Use of Chlorothiazide for Heart Failure, Nephrosis and Cirrhosis — John Laragh, New York
2:30 Control of Edema in Toxemia of Pregnancy — Nicholas Assali
3:00 Diuretic Treatment of Chronic Renal Disease — George Schreiner, Washington, D.C.
3:45 Use of Chlorothiazide in Management of Preeclampsia — Ralph Benson and George Hara
4:05 Clinical Trial of 'Diuril' as a Diuretic and Antihypertensive Agent — Norman A. David and W. Stanley Welborn
4:30 Discussion and Questions: Panel Moderators: John J. Murphy and Bernard Harpole

Banquet and Scientific Program

Evening

Place: Hotel Multnomah—*The Rose Bowl*

6:00 Cocktail Hour, Courtesy Merck, Sharp & Dohme
7:00 No-Host Banquet. Entertainment by The Forceps Four singing group.
8:00 *Address:* Diuretics in the Treatment of Hypertension — Robert Wilkins, Boston, Mass. (*Introduced by Homer Rush*)

OSMS Urges New Building for National Library of Medicine

A recent editorial in the *Journal of the American Medical Association* relating to ancient and inadequate facilities for the National Library of Medicine in Washington, D.C., has resulted in a resolution from the Oregon State Medical Society urging the United States Congress to provide funds for a new building.

The resolution, introduced by E. G. Chuinard of Portland at the February meeting of the Council, called attention to the *Journal* editorial appearing on page 1153 in the issue of November 2, 1957. The resolution points out that it . . . "is imperative to have modern facilities for the National Library of Medicine in order to properly serve medical education and the health in this nation."

Copies of the resolution were forwarded to Senators and Representatives from Oregon, the Librarian of the National Library of Medicine and the American Medical Association.

Union County Medical Society Elects

Newly elected officers of the Union County Medical Society are as follows: Donald Otten, president; Joseph Frederick, vice-president and Webster Ross, secretary-treasurer. All practice in La Grande.

Special Committee Named for Medicare

The Oregon State Medical Society looked ahead this month to October 31, 1958, when the current Medicare contract for Oregon with the U.S. Army will expire and authorized President Vern W. Miller to appoint a special committee to consider matters relating to the military dependent medical care program.

The Council voted that Russell H. Kaufman should serve as chairman of the three-member committee and also named him the Society's official representative to consider re-negotiation of the contract. Dr. Kaufman represented the Society at initial negotiations in 1956.

The committee was authorized to "handle all problems" relating to Medicare.

Mr. Joseph E. Harvey, Jr., general manager of Oregon Physicians' Service, the Society's fiscal agent for Medicare, reported that military authorities have indicated a desire to negotiate a new contract which would become effective immediately on expiration of the current agreement.

UOMS Applies for Federal Grant

University of Oregon Medical School has made application to the Federal Government for a grant to be used with state and gift money to erect a proposed Medical Research Building. The building, to be constructed on Marquam Hill in southwest Portland, would provide 110,750 square feet in a nine-story area initially with provision for later expansion to 14 stories. The structure is to be erected northeast of the teaching hospital and will connect the Outpatient Clinic, thus forming a quadrangle with the Clinic and with the Multnomah County Hospital.

From an annual figure of $17,500 in 1940-41, annual expenditure for research at the Medical School has risen to $713,500 in 1956-57.

Medical Advisors Named for Center

Eight physicians have been nominated by the Oregon State Medical Society to fill four three-year terms as members of the Medical Advisory Committee to the Portland Rehabilitation Center. Terms of office will expire on March 10, 1961.

New nominees are Forrest E. Rieke, Portland; Ralph Thompsen, Medford; Jules F. Bittner, Pendleton and Paul R. Vogt, The Dalles. Incumbents nominated were A. A. Enos and James H. Stewart, Salem, and Clinton S. McGill and Richard L. Sleeter, Portland.

Toledo Physician Honored

Matthew Gruber, 35-year-old Toledo physician, was honored recently as the town's most distinguished junior citizen for 1957 at an annual banquet sponsored by the Toledo Junior Chamber of Commerce.

Dr. Gruber is a 1950 graduate of the University of Minensota Medical School.

A committee of prominent citizens selected Dr. Gruber as recipient of the award.

Medical Board Licenses 14 Physicians

At a regular meeting of the State Board of Medical Examiners held in Portland January 16-18, licenses were issued to 14 physicians and surgeons to practice medicine and surgery in Oregon. Those receiving licenses are: *in Portland*—George Marion Austin, Robert Harry Bigley, Muriel Joan D. Hege, Frank Bushey Hege, Jr., William Wynne Hicks, Jr., Thomas Lynn Miller, Peter Paul Rowell, George Robert Satterwhite, and Jon Vidalin Straumfjord, Jr., M.D.; *other than Portland*—Fred Gin Chin, Parks Air Force Base, Calif.; Robert Jewett Fry, Corvallis; Thad Eugene Furlong, Salem; Anthony John Smith, Coos Bay; and Ernest August Wagner, National City, Calif.

The next regular meeting of the Board of Medical Examiners is set for April 10-12.

Lung Cancer Deaths To Be Studied

A few physicians in Oregon soon will be asked to cooperate with the U.S. Public Health Service in a limited survey of lung cancer deaths as part of a national study of the relationship of such deaths to smoking.

The request to study 39 deaths in Oregon was approved by the Council of the State Society on recommendation of the Committee on Cancer Study. C. Todd Jessell, chairman, reported the Committee unanimously recommended that the project be approved. The study will be conducted by the National Cancer Institute and the National Office of Vital Statistics assisted by the Oregon State Board of Health.

Retired Physicians Receive Memberships

One application for Life Membership and two requests for status as Active Member Emeritus were approved at the February meeting of the Council of the Oregon State Medical Society.

Life Membership was granted to Charles C. Newcastle, long-time Portland physician who recently retired from practice.

Recipients of Active Member Emeritus classifications were Bernard Barkwill of Coos Bay and F. Walter Brodie of Portland. Active Members Emeritus are physicians who have been active members in good standing for less than 30 years and who have retired.

Central Oregon Medical Society

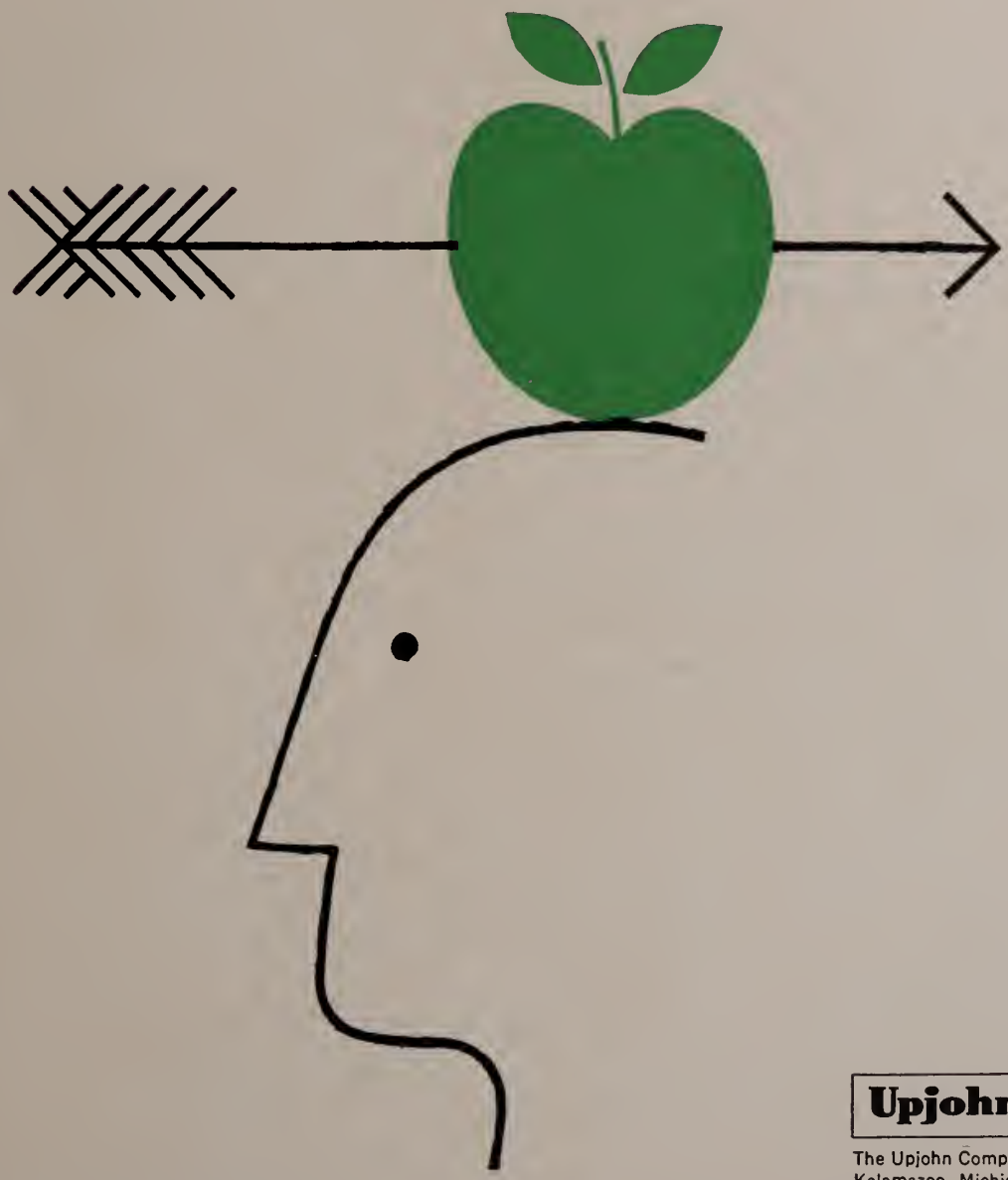
At the January dinner meeting in Bend, members of Central Oregon Medical Society heard Frank Queen of Portland review progress in cancer research. Dr. Queen is professor of pathology at the University of Oregon Medical School.

Members from Prineville, Redmond, Bend and Madras attended the meeting. Harry E. Mackey of Bend presided in the absence of Max Hemingway, president, also of Bend.

Medrol*

the corticosteroid that hits the disease

but spares the patient



*TRADEMARK FOR METHYLPREDNISOLONE, UPJOHN

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Kalamazoo, Michigan



For fast, complete treatment of vaginal infections

Problem is: she'll wait until discomfort is acute and then expect immediate relief. The answer is Trisert. Trisert preparations contain ALLANTOIN, an effective debriding agent which quickly dissolves heavy mucus often accompanying vaginal infections . . . METHYLBENZETHONIUM CHLORIDE, a quaternary germicide which removes unpleasant odors . . . SUCCINIC ACID, an aid in maintaining optimal vaginal pH . . . 9-AMINOACRIDINE HYDROCHLORIDE which has been included to supplement the bactericidal and trichomonacidal activity of other constituents. Treatment with Trisert Powder will control symptoms fast . . . usually within an hour . . . and provide effective initial treatment for 48 hours. After a second insufflation, the treatment is completed with at home use of Trisert Tablets which will generally bring the infection under complete control within 7 days.



Trisert

TRISERT TABLETS—Patient set, contoins bottle of 30 tablets ond special inserter. Bulk bottle of 100 tablets.

TRISERT POWDER—Availoble in 4 gr. individual treotment bottles. 12 to carton.

TRISERT POWDER INSUFFLATOR—Designed for use with Trisert Powder. Its use is urged for moximum efficiency.

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William Horsfall of Coos Bay Dies

Dr. William Horsfall, known as Coos Bay's "grand old man of medicine," died in his sleep on the morning of January 17, 1958, at the age of 91.

Dr. Horsfall's long career of 64 years of service to his patients and community earned him a special place in the hearts of his fellow citizens. In 1952 he was honored by the State Medical Society and a special tribute was printed in the program for that annual meeting.

Dr. Horsfall was born in England on November 27, 1866. He was brought to the United States at the age of 4 by his parents, the Very Reverend Dean William and Sara Horsfall. He came to Coos Bay at the age of 20 in 1886, and received his degree from Cooper Medical College in San Francisco in 1892.

After receiving his degree, Dr. Horsfall returned to Coos Bay to begin the longest medical career ever pursued in any one community of Oregon.

An active participant in medical organization, he was twice President of Coos-Curry County Medical Society.

Even as a young practitioner, Dr. Horsfall was unusually courageous and resourceful. It is probable that the appendectomy he did on a kitchen table in a lonely cabin in the Coquille Valley in 1894 was the first successful operation for this condition performed in the Coos Bay region.

A lengthy editorial in the *Coos Bay World* last January 20, entitled "A Book Will Be Written . . ." quoted a colleague who said, "He kept up amazingly well and had a fantastic knowledge of the new methods and techniques. We of the medical profession hold a profound respect for Dr. Horsfall."

The editorial concluded, "The tribute that has been paid before to men of stature can be paid to Dr. Horsfall, that his community was a better place because he lived."

Albert Prill, Pioneer Scio Physician, Dies

Dr. Albert G. Prill, family physician in Scio for 54 years, died January 26, 1958, in an Albany hospital at the age of 88.

Dr. Prill was a Life Member of the Oregon State Medical Society and the American Medical Association. He carried on an active practice for 64 years.

Born on May 5, 1869, in Springfield, N. Y., Dr. Prill came to Oregon in 1890 after graduating the year before from the University of Vermont College of Medicine. Although a graduate in 1889, he was not awarded his M.D. degree until 1949, 60 years later. An illness prevented him from taking his final examinations.

As an ornithologist of national recognition, he donated several personal collections to universities, museums and libraries across the country. His exhibits are on display at the University of Oregon, Smithsonian Institute and Goldengate Park Museum in San Francisco.

Dr. Prill's contribution as a naturalist and lecturer won him recognition from the Oregon State Forestry Department when a lake in the Cascade range was named in his honor.

Civie activities were not overlooked during his long career. Dr. Prill was a former mayor and city health officer of Scio. He also served as a member of the school board for 18 years.

When the bronchial tree has too much "bark"

make cough MORE PRODUCTIVE, LESS DESTRUCTIVE

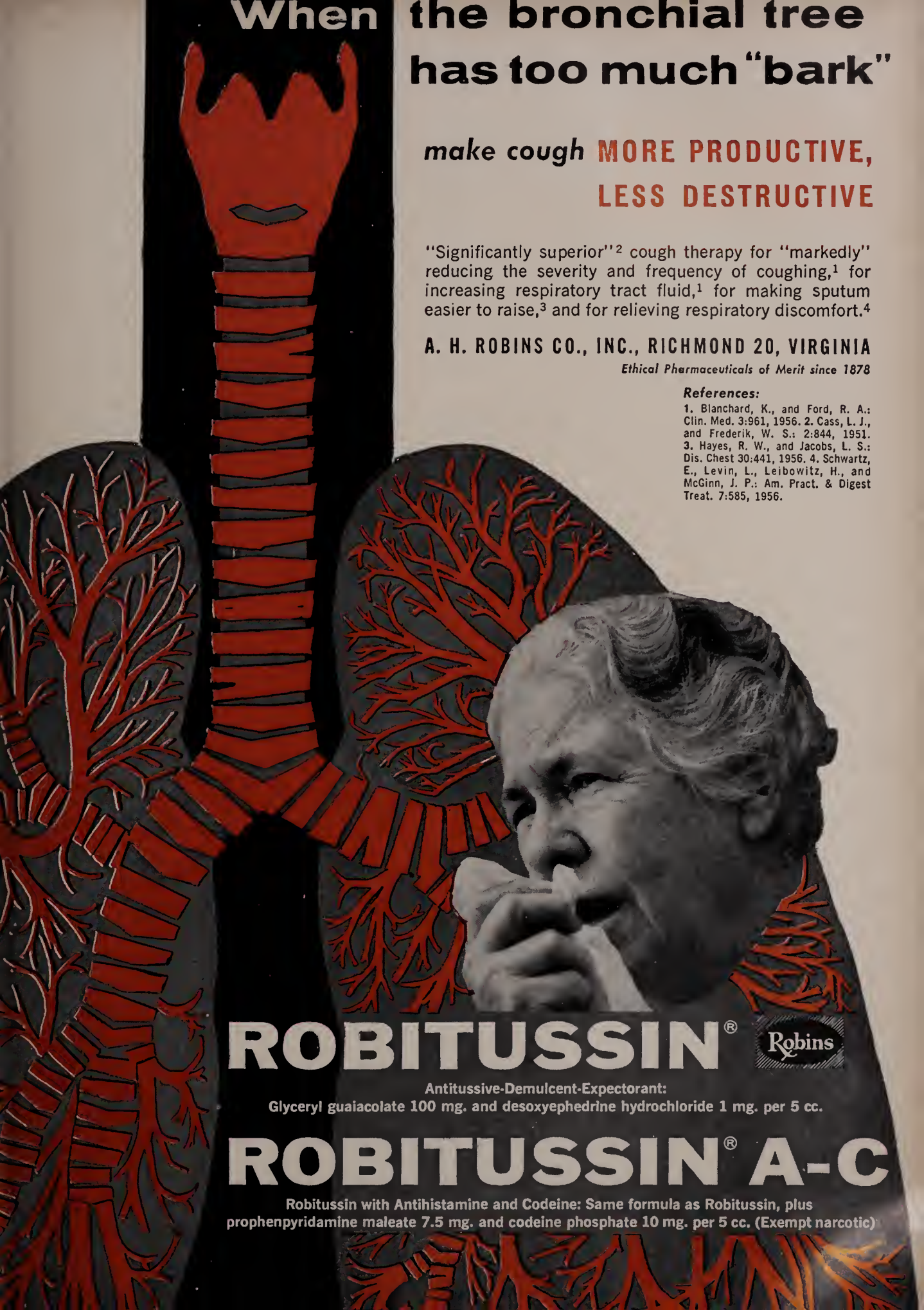
"Significantly superior"[2] cough therapy for "markedly" reducing the severity and frequency of coughing,[1] for increasing respiratory tract fluid,[1] for making sputum easier to raise,[3] and for relieving respiratory discomfort.[4]

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Ethical Pharmaceuticals of Merit since 1878

References:

1. Blanchard, K., and Ford, R. A.: Clin. Med. 3:961, 1956. 2. Cass, L. J., and Frederik, W. S.: 2:844, 1951. 3. Hayes, R. W., and Jacobs, L. S.: Dis. Chest 30:441, 1956. 4. Schwartz, E., Levin, L., Leibowitz, H., and McGinn, J. P.: Am. Pract. & Digest Treat. 7:585, 1956.



ROBITUSSIN®

Robins

Antitussive-Demulcent-Expectorant:
Glyceryl guaiacolate 100 mg. and desoxyephedrine hydrochloride 1 mg. per 5 cc.

ROBITUSSIN® A-C

Robitussin with Antihistamine and Codeine: Same formula as Robitussin, plus prophenpyridamine maleate 7.5 mg. and codeine phosphate 10 mg. per 5 cc. (Exempt narcotic)

Multnomah County Medical Society Installs Officers for Current Year

Werner E. Zeller, Portland surgeon, assumed the presidency of Multnomah County Medical Society during the group's annual banquet in January. He succeeds Herman A. Dickel, president-elect of the State Society.

Arthur F. Hunter, clinical associate in the department of radiology at the University of Oregon Medical School, was named president-elect of the 800-member society.

Others installed in office were: Norman A. David, first vice-president; Charles E. Littlehales, second vice-president; Verner V. Lindgren, secretary, and Ivan I. Langley, treasurer. All are Portland physicians.

Board of Health Officers Named

Mr. Ralph Robertson, president of the Oregon State Board of Pharmacy, has been elected president of the State Board of Health. He succeeds N. E. Irvine of Lebanon. Carl Holm, Salem, was named vice-president and Leo Skelley, McMinnville, second vice-president. Harold M. Erickson was reappointed state health officer.

Clackamas County Medical Society

Holliser M. Stoltc has replaced L. Lloyd Smith as president of the Clackamas County Medical Socicty. Others named to offices were: Henry E. Schlegel, vice-president, and Daniel Billmeyer, secretary-treasurer. All are Oregon City physicians.

Jackson County Medical Association

Members of the Jackson County Medical Association met at Ashland in December to elect officers for 1958. Florian J. Shasky of Medford was elected to succeed to the presidency. Serving with him during the current year are Earl Lawson, Medford, secretary, and Ralph Thompson of Medford, treasurer, both holdover officers. Others elected to office were: Charles Lemery of Medford, historian; John Bradshaw of Ashland, member of the board of censors; and B. A. Cope of Ashland and B. Brandt Bartels of Medford, delegates.

Speaker at the meeting was James C. Luce, Medford, who had represented the Jackson County Medical Association at the national civil defense conference held in Chicago last fall.

Linn County Medical Society Elects

H. P. O'Neill of Albany was installed recently as president of the Linn County Medical Society, replacing C. W. Schoen, Lebanon. Other officers for the current year are: John Stanwood, Lebanon, vice-president; Robert Daugherty, Lebanon, secretary-treasurer and Ralph Wade, Albany, delegate.

Umatilla-Morrow County Society Elects

Louis J. Feves of Pendleton has been elected to the presidency of the Umatilla-Morrow County Medical Society. Dr. Feves succeeds J. Ralph McDonald, also of Pendleton.



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President's Page



VERN W. MILLER, M.D.

Following the theme initiated on this page in the January issue, recognition is given to eight more members of the Society who are devoting time to the success of our organization through volunteer service as chairmen of important committees. The members pictured head up the following Society activities: Committee on Tuberculosis, Committee on Conservation of Hearing, Committee on Cancer Study, Liaison Committee to the Oregon Association of Hospitals, Joint Medical-Legal Committee of the Oregon State Bar and the Oregon State Medical Society, Members of the Oregon Conference for the Improvement of the Care of the Patient, Advisory Committee to the Woman's Auxiliary, and the Committee on Heart Disease. This year 54 members are serving as committee chairmen.

Vern W. Miller

President



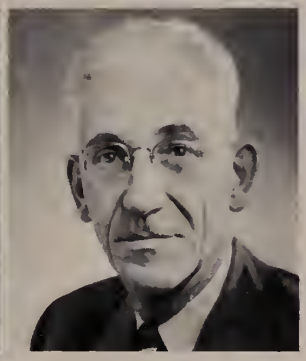
J. Karl Poppe, M.D.
Chairman
Committee on Tuberculosis



George E. Chamberlain, M.D.
Chairman
Committee on the Conservation of Hearing



C. Todd Jessell, M.D.
Chairman
Committee on Cancer Study



T. G. McDougall, M.D.
Chairman
Liaison Committee to the Oregon Association of Hospitals



Orville N. Jones, M.D.
Chairman
Joint Medical-Legal Committee to the Oregon State Bar and the Oregon State Medical Society



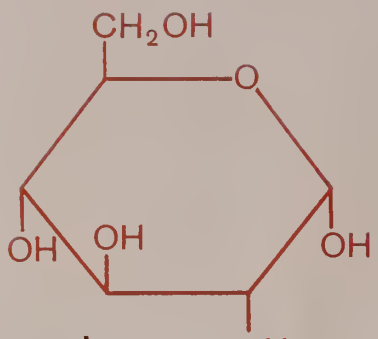
Leo J. Meienberg, M.D.
Chairman
Members of the Ore. Conference for the Improvement of the Care of the Patient



J. Richard Raines, M.D.
Chairman
Advisory Committee to the Woman's Auxiliary



Charles W. Caffen, M.D.
Chairman
Committee on Heart Disease



Glucosamine . . . a physiologic absorption-enhancing agent

In the search for the ideal antibiotic-enhancement agent, Pfizer had three requirements to fill: (1) the adjuvant had to produce significantly higher antibiotic blood levels, (2) it had to achieve these higher blood levels consistently from patient to patient, (3) the adjuvant itself had to be perfectly safe to use.

Enhancement studies involving 84 adjuvants (including sorbitol, citric acid, sodium hexametaphosphate, and other organic acids and chelating agents, as well as phosphate complex and other analogs), and 30,000 blood level determinations revealed glucosamine as the enhancement agent of choice. Not only did glucosamine considerably increase antibiotic blood levels, but it produced these higher blood levels more consistently in crossover tests. And, importantly, glucosamine has no adverse effect in the human body.

Glucosamine is a normal physiologic metabolite that is found widely in the human body. Glucosamine does not irritate the gastrointestinal tract; it is sodium free and releases only four calories of energy per gram. Further, there is evidence that glucosamine may influence favorably the bacterial flora of the intestine.

faster absorptio higher tetra-cycline blood levels

new well-tolerated

COSA

GLUCOSAMINE-POTENTIATED TETRACYCLINE

hree advantages of
lucosamine-potentiated
etracycline, for
our consideration

2 3

achieved with

physiologic advantages of glucosamine

a normal human metabolite

greater consistency of higher tetracycline blood levels

TETRACYN*

The most widely prescribed broad-spectrum antibiotic now potentiated with glucosamine, the enhancing agent of choice

Capsules, 250 mg., 125 mg.

Half strength (125 mg. capsule) for long-term indications or pediatric use

Pfizer PFIZER LABORATORIES, *Division, Chas. Pfizer & Co., Inc.*, Brooklyn 6, N. Y.

*Trademark



complete protection

To build sound bones and teeth, and to promote body resistance to disease, infants need sufficient quantity of vitamins A, C and D. When you prescribe Special Morning Milk and orange juice, or another source of ascorbic acid, vitamin requirements are normally met. Among all brands of evaporated milk, only Special Morning Milk is fortified with both vitamins A and D (2,000 U.S.P. units vitamin A and 400 U.S.P. units vitamin D per reconstituted quart).

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ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane
Secretary, F. A. Tucker, M.D., Seattle
Executive Secretary, Mr. R. W. Neill, Seattle



CONFERENCE PERSONALITIES: Featured speakers and other personalities at the Second Biennial Conference for County Medical Society Officers are shown above. In top left photo are morning session speakers, from left: Mr. Warren Whyte, George M. Fister, W.S.M.A. President Milo T. Harris, Arnold J. Herrmann and Mr. Ralph W. Neill. Top right photo shows panel on working with press, radio and TV: Mr. Howard Cleavinger, Paul Rider, E. Harold Laws, Mr. Lincoln Miller and John R. Hogness. Bottom photos show head table at luncheon session, from left: Emmett L. Calhoun, W.S.M.A. president-elect; Mr. Whyte; James H. Berge, W.S.M.A. executive committee chairman; Raymond L. McKeown, luncheon speaker; Dr. Harris; Dr. Fister; F. A. Tucker, W.S.M.A. secretary-treasurer, and Dr. Laws.

Conference of County Society Officers Considers Problems Faced by Profession

Threats of government intervention in the practice of medicine and other problems facing the profession were considered at the Second Biennial Conference for County Medical Society Officers and Public Relations Chairmen in Seattle January 25.

The meeting, sponsored by the Washington State Medical Association, drew 84 registrants, including officers and staff members of the county societies and the State Association and guests. Twenty-one of the state's 26 county societies were represented.

President Milo T. Harris of Spokane opened the meeting and expressed hope it would strengthen liaison between the county societies and the State Association. He said the medical profession must have coordination and unity of purpose in order to meet the many challenges it faces.

George M. Fister of Ogden, Utah, member of the American Medical Association Board of Trustees and chairman of AMA Committee on Legislation, discussed national legislation, with particular reference to the Forand Bill, which is now before Congress. He emphasized that if the Forand Bill, or anything similar to it, were adopted by Congress, "we would be witnessing the longest and most direct step yet taken toward government medicine in America." He said the fundamental philosophy of the bill is "the same old, but rejuvenated principle that if the people will pay more taxes, then the various bureaus in Washington will . . . give to the people what they cannot provide for themselves."

Dr. Fister declared that "as the practice of medicine is our business, interest in legislation is our responsibility. The two are inseparable and if we wish to maintain what remains of the freedom of the private practice of medicine, with free choice of physician, it is mandatory that we give our best efforts to County, State and National legislative problems."

Also speaking on national legislation and the Forand

(Continued on page 367)



"PROOF IN PRACTICE"

a study of 12,880 hypertensive patients

No. of Patients	Results	Percent
3,929	excellent	30.5%
6,393	good	49.6%
1,535	fair	11.9%
596	unsatisfactory	4.6%
427	side effects	3.3%

The tabulations at the left are from the recently completed study on cryptenamine (Unitensen) in which 12,880 patients and 1,384 physicians participated. Evaluation of the drug was based on experience in everyday private practice.

A summary of the "proof in practice" study is available upon request from the Medical Director of Irwin, Neisler & Co.

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(Continued from page 365)

Bill was Mr. Warren Whyte of Chicago, executive secretary of AMA Committee on Legislation. He described the bill as "socialized medicine, pure and simple," and emphasized that the medical profession cannot afford to lose the fight against it. He advised medical societies to inform their members on the Forand Bill and its dangers, and to communicate their views to their congressmen.

Mr. Ralph W. Neill, executive secretary of the Washington State Medical Association, urged county society officers to keep abreast of national and state legislative developments, and be ready to act when called upon. He also asked that the WSMA Central Office be kept informed on local developments.

Raymond M. McKeown of Coos Bay, Oregon, member of AMA Board of Trustees, addressed the luncheon session on "The Challenge to Prepaid Plans." He said the rapid spread of prepaid medical care in America has been phenomenal. "Today they are providing the American people with the best medical care in the world," he declared.

"Three great issues may be said to face the plans today," said Dr. McKeown. "If these issues are solved satisfactorily, the years ahead look bright indeed for prepaid medicine. But if the plans cannot or will not solve them, it could well mark the beginning of their decline from the American scene.

"The three great issues before the plans are: First, to establish a satisfactory means of providing economically sound total medical coverage; second, to develop medical coverage for those not ordinarily covered now; and third, to develop a satisfactory approach towards accepting or rejecting existing closed panel prepaid medical coverage plans which so closely resemble the old contract practice of medicine. If able to solve these three fundamental challenges, the plans may look with great optimism to the future, indeed."

The afternoon session featured a panel discussion on Working with Press, Radio and Television. E. Harold Laws, chaiman of WSMA Public Relations Committee, was moderator. Members of the panel were Mr. Howard C. Cleavinger, managing editor of the *Spokane Chronicle;* Paul Rider, chairman of the Yakima County Medical Society Public Relations Committee; Mr. Lincoln Miller, vice-president of Station KIRO, Seattle, and John Hogness, chairman of the King County Medical Society Public Relations Committee.



Donald T. Hall, M.D.

Also included in the afternoon program were an address by Donald T. Hall of Seattle on WSMA Medical Defense Fund, of which he is chairman, and a discussion of public relations projects and materials by Mr. Vern Vixie, WSMA Public Relations Director.

In the final session, which was conducted as a general forum, the principal subject considered was the Medical Disciplinary Act. James H. Berge of Seattle, chairman of the Medical Disciplinary Board, discussed the jurisdiction of the Board and the administration of the law.



F. M. Graham, M.D.

The conference was planned and directed by the WSMA Public Relations Committee, with the assistance of the Central Office staff. Acting as session chairmen were two members of the Committee, Arnold J. Herrmann of Tacoma and F. M. Graham of Bellingham.

Copies of the papers and proceedings of the meeting will be distributed to the conference registrants, as well as other interested physicians.

Spokane Society of Internal Medicine To Meet in Annual Session April 11

Annual meeting of the Spokane Society of Internal Medicine will be held April 11 in the Isabella Room of the Davenport Hotel. Papers will be presented from 9 in the morning until 5:30 P.M., followed by social hour at 6:30 P.M. and evening banquet at 7:30 P.M.

Guest speakers for the annual session are Thomas Carlile of Seattle and Donald M. Pitcairn of Portland. Dr. Carlile will speak on radioactive isotopes in the treatment of benign and malignant disease. Dr. Pitcairn will discuss pulmonary disease.

Several Spokane physicians also will present papers. They are: Arthur B. Petersen, Loren A. Gothberg, Robert A. Stier and Samuel K. McIlvanie.

Robert Picken of Opportunity is program chairman and Roy Biehm, Spokane, is in charge of arrangements. Those who plan to be at the meeting are asked to make their own hotel reservations.

All physicians are invited to attend the one-day session and it is suggested that the opportunity be taken also to attend the annual meeting of the Spokane Surgical Society which is to be held the following day, also in the Davenport Hotel.

Spokane Surgical Society To Hold Annual Meeting on April 12

Spokane Surgical Society members will meet April 12 at the Davenport Hotel for their annual session. Guest speaker will be George Pack, clinical professor of surgery at New York Medical College and associate professor of clinical surgery at Cornell University Medical College.

Dr. Pack will speak on three subjects: 30 Years Experience in Management of Carcinoma of the Stomach, Surgical Attack on Tumors of the Liver, and Sarcoma of the Soft Tissues. In addition, several papers are scheduled to be given by members of the Society.

Ralph Berg, Jr., is chairman of the program committee.

Riverton Hospital Expands Services

At the beginning of the year, Riverton Hospital in Seattle, the oldest tuberculosis sanatorium in the Pacific Northwest, began accepting patients with other chronic and acute diseases. The Hospital will continue to specialize in the care of patients with pulmonary diseases and at the same time will provide general hospital care with certain limitations.

Heart Association Names Seattle Physician Chairman of Rehabilitation Committee

Donal Sparkman, Seattle cardiologist, has been named chairman of the American Heart Association Rehabilitation Committee.

The national Rehabilitation Committee includes nationally known physicians specializing in problems of the cardiac worker, labor and industrial leaders and heads of government agencies concerned in the problem. The new chairman met with the committee in New York February 14.

Dr. Sparkman has been a member of the AHA Rehabilitation Committee since its organization in 1954. He is chairman of the Washington State Heart Association's Rehabilitation Committee and is also Medical Director of the Association's Cardiac Work Evaluation Clinic, a service which assists in solving the work problems of heart patients.

Additional Committee Appointments Noted

Two committee chairmen have been appointed by the Washington State Medical Association Board of Trustees to fill vacancies due to resignations. Eric Sanderson of Seattle was placed on the Medical Economics Committee for a three-year term, and R. P. Moore of Port Angeles will head the Publication Committee for a one-year term.

President Milo T. Harris has named two additional members to the Civil Disaster Committee. They are Peter T. Brooks of Walla Walla and Richard B. Link of Tacoma.

Spokane Academy of General Practice

Ninth annual meeting of the Spokane Academy of General Practice drew an attendance of more than 120 general practitioners from Montana, Idaho, Washington and British Columbia. The session was held early in December at the Spokane Hotel.

Robert W. Kistner and Charles L. Easterday, both faculty members of Harvard Medical School, were guest speakers. They conducted a symposium on obstetrics and gynecology during the day, and then spoke at the evening banquet.

Research Fellowship Awarded

John Morledge, research fellow in cardiology at the University of Washington School of Medicine, has been awarded a research fellowship provided by the South Central Alaska Heart Association. The fellowship, which becomes effective September 1 of this year, will enable Dr. Morledge to continue his studies in clinical cardiology under the direction of Robert A. Bruce.

Southwest Washington Academy of GP

Southwest Washington Academy of General Practice quarterly meeting was held at the Longview Country Club January 28. Following dinner and social hour, John Benward, pediatrician from Portland, spoke on Latest Developments in Pediatrics. Annual Meeting and election of officers is scheduled for March 19 at the Royal Oaks Country Club.

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Seattle Academy of Surgery Elects

At the January meeting of the Seattle Academy of Surgery, members elected the following officers for 1958: Lawrence M. Penny, president; W. N. Moray Girling, vice-president; Donald D. Corlett, secretary, and E. H. Torkelson, treasurer.

Speaker at the dinner meeting was Clarence Olson, Seattle chest surgeon. Dr. Olson spoke on surgical emergencies occurring with chest injuries. His discussion stressed complications arising as a result of automobile and industrial accidents to the thoracic cage.

The academy has scheduled its next meeting for March 21 at the Washington Athletic Club.

UWSM Offers Spring Postgraduate Courses

New Developments in Pediatric Diagnosis and Therapy ..... March 19-22
Pathogenesis and Treatment of Edema and Hypertension ..... March 29
Obstetrics and Gynecology ..... April 10-11
Allergy in Medical Practice ..... May 16-17

For further information, detailed programs and registration forms please write to: Mrs. Betty A. Schenk, Postgraduate Medical Education Secretary, University of Washington School of Medicine, Division of Postgraduate Medical Education, Seattle 5, Washington.

County Health Officer Resigns

Lucien J. Coquet, Skagit County health officer since March, 1956, resigned his post effective the last of January. Dr. Coquet has entered full-time private practice in Burlington.

Spokane Pharmacies Support Scholarships

University of Washington School of Medicine recently received $1,000 from four Spokane pharmacies to support two annual $500 scholarships for promising medical students from the Inland Empire area. The check was presented by J. B. Phinney, secretary of the Spokane County Medical Society.

Participating pharmacies are Cowen's, Hart and Dilatush, Miller and Felt, and Whitlock's. This is the fourth year they have offered the scholarships. Winners for the coming year will be announced by the school at Medical Honors Day ceremonies in May.

Mosquito Control District Formed

In accordance with a referendum which approved the forming of a Mosquito Control District for Adams County, an organizational meeting was held recently in Lind. J. Colin Lindsay of Ritzville was appointed physician for the county at large. The tax levy which would have implemented the group's operations, however, lost due to the fact that too few Adams County residents voted to legalize the election.

UWMS Receives Grant from USPHS

A grant of $5,200 from the U.S. Public Health Service was recently awarded to the department of obstetrics and gynecology at the University of Washington School of Medicine for the study of aldosteronuria and its mechanisms during normal and toxemic pregnancy.

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Magnesium Trisilicate .....7 grs. (0.45 Grom)
Methylcellulose (mucin-like colloid) .....1 gr. (0.065 Gram)

DOSAGE: 2 tablets every 2 to 4 hours. Tablets to be chewed and swallowed without the aid of fluids. 1 tablespoonful of liquid NEOSORB equivalent to 2 NEOSORB tablets. Supplied in sizes 100, 500 and 1000 tablets. Liquid in quarts and pints.

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13th Naval District Sets Billing Instructions For Medical Care of Active Duty Personnel

In accordance with a directive from the Secretary of the Navy to the Chief of the Bureau of Medicine and Surgery, authority has been delegated to respective District Medical Officers to adjudicate and approve all claims of expenses for medical care furnished Naval and Marine Corps personnel by civilian non-Federal sources located within the geographic confines of the district.

Billing instructions as set down for the Thirteenth Naval District, which includes the states of Washington, Oregon, Idaho and Montana, are as follows:

HEADQUARTERS THIRTEENTH NAVAL DISTRICT
DISTRICT MEDICAL OFFICE
SEATTLE 15, WASHINGTON

When the situation does not permit obtaining treatment from Federal facilities, necessary treatment may be obtained from civilian sources by or on behalf of members of the Naval Service, and REASONABLE expenses therefor may be allowed as a charge against the Navy. The expense of ELECTIVE medical or surgical treatment from civilian sources may be allowed under NO circumstances. Elective medical and surgical treatment is defined as medical or surgical care that is desired or requested by the patient which, in the opinion of cognizant medical authority is not medically indicated, e.g., surgery solely for cosmetic purposes.

The unpaid bill for medical treatment or hospitalization should be prepared in sextuplicate and addressed to:

Commandant (Code 46)
THIRTEENTH Naval District
Seattle 15, Washington

The bill should be itemized to show:

1. Full name, rate or rank, and serial number of the patient.
2. Services rendered and supplies furnished.
3. Date or dates on or between which services were rendered.
4. Nature of and charge for each item.

When a bill is signed or receipted in the name of a physician or hospital, the name of the person writing the physician or hospital's name, as well as the capacity in which he signs, must appear. EXAMPLE: "John Doe, M.D. per Jane Smith, Secretary" or "Sacred Heart Hospital per John Smith, Administrator" or as the case may be. Six additional signed or receipted bills must be submitted for services of each special nurse, anesthetists, or other persons on a fee basis, unless the bill including such services is accompanied by the above required number of receipts to show that the expenses have been defrayed by the physician, hospital or firm submitting the bill, or by a statement to the effect that the individual is a full-time employee of the payee.

History of Medicine Discussed at Gonzaga

Robert P. Parker, Spokane internist, recently lectured on History of American Medicine at Gonzaga University. Dr. Parker traced the main events in the history of medicine from the earliest days of the nation up to the present time. He summarized with what he believed to be the future of medicine. Question and answer period followed the formal presentation.

UWMS To Present Postgraduate Course on Edema and Hypertension March 29

A postgraduate course on Pathogenesis and Treatment of Edema and Hypertension will be presented in the Health Sciences Building Auditorium of the University of Washington School of Medicine, Saturday, March 29. Attendance is open to all physicians and no tuition fee will be charged.

Recent advances in the understanding of mechanisms of edema formation will be discussed, and reviews of clinical experience and investigation of new methods of treatment will be presented.

Medical School faculty members who will participate in the program are: Earl P. Benditt, professor and executive officer of pathology; Russell R. de Alvarez, professor and executive officer of obstetrics and gynecology; John H. Luft, instructor and senior fellow in anatomy, and Robert F. Rushmer, professor of physiology and biophysics.

The following guest speakers also will present papers: John H. Laragh, instructor in medicine, Columbia University College of Physicians and Surgeons, New York; Robert R. Pitts, professor and chairman of physiology, Cornell University Medical College, New York; George E. Schreiner, assistant professor of medicine, Georgetown University School of Medicine, Washington, D. C., and Robert W. Wilkins, professor of medicine, Boston University School of Medicine, Boston.

State Heart Association Sponsors Low Sodium Diet Classes

First of the new series of Low Sodium Diet Classes sponsored by Washington State Heart Association was presented last month in Longview. The classes are open to patients whose physicians have prescribed such a diet, to members of the patients' families involved in preparation of food, to professional personnel in the field of nutrition and to expectant mothers whose physicians have prescribed a low-sodium diet.

This new community service program was organized at the request of many physicians throughout the state. The course of study was prepared by the Heart Association's committee on nutrition in line with the results of a pilot study conducted last September in Yakima to determine what type of classes would best serve the patients.

Instructions are given by dieticians, and physicians are in attendance to answer medical questions.

Classes in King County are expected to be scheduled in April. Any county medical society which is interested in having these classes made available to their community should contact: Washington State Heart Association, 3121 Arcade Bldg., Seattle 1.

Physicians Buy Skagit Laboratory

A corporation composed of Skagit County physicians has purchased the Skagit County Clinical Laboratory and Blood Bank of Mount Vernon. Don Hammond of Mount Vernon is president of the new corporation. Other officers are Robert Hunter, Sedro Woolley, vice-president, and J. Walfred Wallen, Burlington, secretary-treasurer. According to the new owners, the laboratory will continue in its procedure of making blood available to all hospitals in Skagit County without interruption.

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Vitamin D	1,000 U.S.P. Units
Vitamin B_{12}	5 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Riboflavin (B_2)	10 mg.
Pyridoxine HCl (B_6)	2 mg.
Vitamin E (as tocopheryl acetates)	5 I. U.
Vitamin K (Menadione)	2 mg.
Ascorbic Acid (C)	150 mg.
Calcium Pantothenate	5 mg.
Niacinamide	100 mg.
Folic Acid	1 mg.
Calcium (as $CaHPO_4$)	107 mg.
Phosphorus (as $CaHPO_4$)	82 mg.
Iron (as $FeSO_4$)	15 mg.
Magnesium (as MgO)	6 mg.
Potassium (as K_2SO_4)	5 mg.
Iodine (as KI)	0.15 mg.
Boron (as $Na_2B_4O_7 \cdot 10H_2O$)	0.1 mg.
Copper (as CuO)	1 mg.
Manganese (as MnO_2)	1 mg.
Fluorine (as CaF_2)	0.1 mg.
Zinc (as ZnO)	1.5 mg.
Molybdenum (as $Na_2MoO_4 \cdot 2H_2O$)	0.2 mg.
Choline Bitartrate	25 mg.
Inositol	25 mg.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Purified Intrinsic Factor Concentrate	0.5 mg.

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Heart Association Endows Chair For Cardiovascular Research at UWSM

Washington State Heart Association recently announced the endowment of a permanent Chair for Cardiovascular Research at the University of Washington School of Medicine. It is the first endowed Chair at the institution.

Under terms of the endowment, the Association will grant $15,000 annually to the Medical School for the continued support of an outstanding research investigator. Any funds remaining over the investigator's salary may be used as a grant for his research requirements, such as technical assistants, laboratory equipment and supplies. The investigator also will be eligible to apply to the Association for additional funds if needed to support his work.

Selection of the investigator to occupy the Chair will be made by the University School of Medicine and the Heart Association. It will be a permanent appointment with the researcher being subject only to the University tenure system. He will become a full-time faculty member of the Medical School with a standing of assistant professor or higher grade and will have qualities which are believed to eventually make him eligible for full professorship. The appointment is expected to be made this spring.

Endowment of the Chair differs from previous Heart Association research grants in that this endowment supports the man as well as his work, leaving him free to spend almost his full time in research unhampered by teaching and administration duties. Currently the Washington State Heart Association is supporting 15 investigations to discover causes and means of control of heart and blood vessel ailments.

Spokane County Medical Society

J. C. Hathaway has assumed the presidency of the Spokane County Medical Society, succeeding G. Clifford Smith. Those elected to office are: Clarence L. Lyon, president-elect; Joseph B. Finney, secretary; Robert F. Welty, treasurer; John R. Cole and A. T. Perry, trustees; and D. G. Corbett, censor. Delegates are: Dr. Hathaway, Dr. Lyon, Dr. Smith, A. O. Adams, George H. Anderson, Fred C. Harvey and Robert E. Jensen. Alternate delegates are: John C. Ely, M. M. Kalez, Eric R. Paulson, H. T. Pederson, Leon E. Pollock, G. E. Sanford and W. H. Tousey. All are Spokane physicians except Dr. Ely who practices in Opportunity.

Pierce County Medical Society

Herman S. Judd has been elected to head the Pierce County Medical Society during the present year. Others in top posts are: J. W. Bowen, Jr., president-elect for 1959; Chris C. Reynolds, vice-president, and Arnold J. Herrmann, secretary-treasurer. All practice in Tacoma.

Grant County Medical Society Elects

Officers of the Grant County Medical Society for 1958 are R. M. Gill, Moses Lake, president and Wayne Piper of Ephrata, secretary-treasurer. Anson F. Hughes of Moses Lake was named president-elect.

Physician Wins Civic Award

Wendell Kirkpatrick, Longview general practitioner, recently was presented with the Longview Junior Chamber of Commerce Distinguished Service Award for community service during 1957. Dr. Kirkpatrick has practiced in Longview since 1953. He is a member of the Longview school board, Rotary Club, Longview Music Society and the World Neighbors. He has been active in the Community Church and has served as president of Cowlitz-Wahkiakum Medical Society. He has been chairman of the Diabetes Detection Campaign, a member of the speakers bureau for the Heart Association and also has assisted with the Red Cross Bloodmobile program.

Location

J. A. Severson has opened offices in Bremerton for the practice of obstetrics and gynecology. Dr. Severson received his medical degree in 1953 from the University of Washington School of Medicine. He served his internship at Pierce County Hospital in Tacoma and then took three years of specialty training at Emanuel Hospital in Portland. In July 1957 he opened offices in John Day, Oregon, while waiting for an opening in Bremerton. Dr. Severson owned a livestock farm and served four years in the U.S. Coast Guard before taking up the study of medicine.

Obituaries

Dr. Olav Johan Fortun of Seattle, 83, died December 8 of cardiac failure due to coronary thrombosis. Dr. Fortun was graduated in 1910 from Chicago College of Medicine and Surgery. He had practiced in Mayvill and Grand Forks, N.D., and Everett before locating in Seattle.

Dr. J. Robert Morrow of Seattle, 68, died December 9 of a cerebral hemorrhage due to cerebral arteriosclerosis. Dr. Morrow retired in 1953 from the United States Public Health Sevice Hospital, Seattle, where he was a consulting eye specialist. He received his medical degree from Jefferson Medical College of Philadelphia in 1914. In 1931 he located in Seattle and had a private practice for several years before entering the Public Health Service.

Dr. Frederick A. McMurray, 65, retired Vahson Island physician, died December 16 of metastatic carcinomatosis due to carcinoma of the right kidney. Dr. McMurray attended Rush Medical College, Chicago, from which he was graduated in 1920. He took his internship at the Norwegian Hospital in New York city and was the first intern to serve at Children's Orthopedic Hospital, Seattle. Dr. McMurray, who began practicing on Vashon in August 1921, spent 36 years serving the Island community.

Dr. Harvey J. Felch, 92, pioneer Ellensburg physician, died December 24 in Des Moines, Wash., of an acute myocardial infarction. Dr. Felch was graduated in 1900 from Kansas City Medical College and located in Ellensburg that same year. He practiced in the Eastern Washington community until his retirement in 1930, at which time he moved to Vashon Island.

Idaho

IDAHO STATE MEDICAL ASSOCIATION
364 Sonna Bldg.
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SIXTY-SIXTH ANNUAL MEETING
July 6-9, 1958
Sun Valley

President, H. B. Waalley, M.D., Idaho Falls Secretary, W. B. Rass, M.D., Nampa Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

T. O. Carver of Boise Appointed State Health Administrator

Terrell O. Carver, Boise, assumed his duties as State Health Administrator under the State Board of Health on February 1. Dr. Carver fills a position that has been vacant since the new Board of Health was appointed by Governor Robert E. Smylie last year.

A graduate of the University of Oregon School of Medicine, 1945, Dr. Carver interned at the U.S. Marine Hospital, San Francisco, and obtained his master's degree in Public Health from Tulane University, New Orleans, 1949. He has been licensed to practice in Idaho since 1949 and is an active member of Southwestern Idaho District Medical Society, Idaho State Medical Association, and American Medical Association.

Selecting a career in Public Health, Dr. Carver has served in a number of capacities. Prior to coming to Idaho, he was Louisiana State Tuberculosis Control Officer. He served as Director of Preventive Medicine, Idaho Department of Public Health, and for the past several years has been Director of the City-County Health Department, Boise, and Director of Health Program, Boise City Schools.

In his new position, Dr. Carver will also serve as Secretary to the State Board of Health and will be in charge of all Public Health activities in Idaho. Serving under him will be the Director of Public Health, and the Director of Mental Health.

Dr. Carver's appointment to the No. 1 Public Health post in Idaho was announced by Paul M. Ellis of Wallace, Chairman of the State Board of Health.

Idaho Physicians at Seattle Meeting

The Pacific Northwest Regional Meeting of the American College of Physicians, held in Seattle January 17, was attended by five Idaho physicians. Papers were given at the session by Charles C. Johnson and Maurice M. Burkholder, both of Boise. Richard P. Howard, Pocatello, was scheduled to present a paper, but was unable to attend. Other Idaho physicians who attended included S. M. Poindexter, Frank W. Crowe and William D. Forney, all of Boise.

Northwest Medicine Trustees Meet in Seattle

Annual meeting of the Trustees of NORTHWEST MEDICINE held in Seattle, January 24-25 was attended by Idaho Trustees Melvin M. Graves, Pocatello; J. B. Marcusen, Nampa, and William T. Wood, Coeur d'Alene.

State Officers and Councilors Hold First Meeting of 1958

First meeting of Association Officers and Councilors for 1958 was held in Boise January 11. Many important matters were considered, among them:

1. Approved renewal of the Medicare Contract and Fee Schedule for the period March 1, 1958 to February 28, 1959; designated Richard D. Simonton, Boise, as Chief Medicare Negotiator.
2. Approved employment of an attorney.
3. Approved plans to visit the ten component medical societies during March, April and May.
4. Reviewed and approved plans for the 66th Annual Meeting of the Association, Sun Valley, July 6-9, 1958.
5. Heard a report of the AMA meeting in Philadelphia, December 2-6.
6. Acting as the Medicare Board of Review, adjusted several Medicare claims.

Officers attending the session included President Hoyt B. Woolley, Idaho Falls; President-Elect Donald K. Worden, Lewiston; Past-President Charles A. Terhune, Burley; Secretary-Treasurer W. B. Ross, Nampa; AMA Delegate Raymond L. White, Boise; Councilors Robert E. Staley, Kellogg; F. Wayne Schow, Twin Falls, and Asael Tall, Rigby.

Guest Speakers Accept Invitations To Present Papers at 66th Annual Session

Scientific Program for the 66th Annual Meeting of the Idaho State Medical Association is now complete. Fred E. Wallber of Idaho Falls, program chairman, reports the following have accepted invitations to be guest speakers at the session:

Carl A. Moyer, St. Louis, Professor of Surgery, George Washington University School of Medicine.

Ralph C. Benson, Portland, Professor of Obstetrics and Gynecology, University of Oregon School of Medicine.

C. Donald Creevy, Minneapolis, Professor of Urology, University of Minnesota School of Medicine.

H. Corwin Hinshaw, San Francisco, Clinical Professor of Medicine (Diseases of the Chest), Stanford University School of Medicine.

Don H. O'Donoghue, Oklahoma City, Professor of Orthopedics, University of Oklahoma School of Medicine.

Subjects of the papers that will be presented during the 66th Annual Meeting of the State Association will be announced later.

Former Northwest Medicine Trustee Walter R. West Succumbs

Dr. Walter R. West, 62, Idaho Falls, who served as President of the Idaho State Medical Association, 1950-51, died January 2 in a Salt Lake City Hospital of carcinoma of the antrum.



Walter R. West, M.D.

Dr. West attended the University of Utah School of Medicine for two years and received his degree from the University of Cincinnati College of Medicine in 1925.

Long active in state and community affairs, Dr. West served organized medicine in a number of capacities including that of Trustee to NORTHWEST MEDICINE from 1952 through 1954, Bonneville County Health Officer, President of the staff of the Idaho Falls LDS Hospital, Councilor of Idaho State Medical Association, member of the Medical Education Committee, Civilian Defense Committee, and History and Necrology Committee.

Dr. West was an active member of the Idaho Falls Medical Society, Idaho State Medical Association, American Medical Association, International College of Surgeons, and American Academy of General Practice. He was also a member of the Board of Directors of the Idaho Hospital Service (Blue Cross), Idaho Falls Chamber of Commerce, Bonneville Chapter of the American Red Cross, and had served as President of the Idaho Falls Lions Club.

Obituary

Dr. Lester L. Shupe, 50, Caldwell surgeon, died suddenly December 7 in a local hospital following a heart attack. He was president of the Southwestern Idaho Medical Society at the time of his death. Dr. Shupe was graduated from Western Reserve University School of Medicine in 1932 and took his surgical residency at St. Vincent's Hospital, Cleveland, Ohio. He practiced at Fairbury, Neb., until entering the U.S. Army in April, 1941. Dr. Shupe was discharged from the service with the rank of Lieutenant Colonel in September 1945, at which time he located in Caldwell.

Location

William C. Mannschreck, who left Idaho last November to practice in California, returned to Lewiston in January to reopen his office for the practice of pediatrics.

Southwestern Idaho Society Elects

Newly elected officers for Southwestern Idaho District Medical Society for the coming year are:

President, Ralph R. Jones of Boise; Vce-President, George E. Davis of New Plymouth; Secretary, Glenn Talboy of Boise (re-elected); Treasurer, Vaun T. Floyd of Boise; Council Member, John F. Moser of Cascade.

Medical Planning Committee Meets

The Association's Medical Planning Committee, of which Charles A. Terhune, Burley, is chairman, met in Boise, February 8. A number of important matters were considered by this committee, made up of the following members: E. V. Simison, Pocatello; Donald K. Worden, Lewiston; Raymond L. White, Boise; Russell T. Scott, Lewiston, and Alfred M. Popma, Boise.

Officers Named for Rehabilitation Center

New officers of the Medical Staff for the Idaho Elks Rehabilitation Center, Boise, for the coming year will be:

President, Maurice M. Burkholder of Boise; Vice-President, William R. Tregoing of Boise; Secretary-Treasurer, Frank Crowe of Boise; Executive Committee Members, Manley B. Shaw and James J. Coughlin of Boise.

Idaho Ob-Gyn Specialists Elect Officers

New officers of the Idaho Obstetrical and Gynecological Society for the coming year are:

President, E. R. W. Fox of Coeur d'Alene; President-Elect, James C. F. Chapman of Boise; Secretary-Treasurr, Ervin S. Bills of Idaho Falls; Directors, Fen H. Covington of Twin Falls, and Ralph B. Hegsted of Pocatello.

State Chairman Attends AMEF Meet in Chicago

Jerome K. Burton, Boise, Chairman of the Association's American Medical Education Foundation Committee, attended a one-day national session of AMEF Chairmen in Chicago, January 26. Mrs. Hoyt B. Woolley, Idaho Falls, President of the Woman's Auxiliary to the Idaho State Medical Association, also attended the conference.

South Central Idaho Society Elects

New officers for South Central Idaho District Medical Society for the coming year are:

President, Bernard L. Kreilkamp of Twin Falls; President-Elect, Paul F. Heuston of Twin Falls; Secretary-Treasurer, Fred T. Kolouch of Twin Falls.

North Idaho Medical Society Elects

Eugene J. Baldeck of Lewiston has been elected president of the North Idaho Medical Society to succeed John Ayers of Moscow. Edward N. Dunn of Moscow was named to the office of vice-president and Lester C. Crismon of Lewiston was elected secretary.

Clyde Culp Enters Fellowship at Mayo

Clyde E. Culp, who practiced in Moscow since October 1, 1944, and who has served on the State Board of Medicine since 1954, enters a four year fellowship in proctology at the Mayo Clinic, Rochester, Minnesota, on April 1. Dr. Culp resigned from the Board of Medicine February 1.

State Board of Medicine

The regular meeting of the State Board of Medicine was held in Boise, January 13, 14, 15, 1958. Members of the Board attending the session included S. M. Poindexter, Boise, Chairman; W. B. Ross, Nampa, Vice-Chairman; Paul M. Ellis, Wallace; Clyde E. Culp, Moscow; Leland K. Krantz, Idaho Falls, and Fred T. Kolouch, Twin Falls.

During the meeting, two physicians wrote the examination and received passing grades and will be granted licenses upon completion of their internship. They were:

Doyle Barrett, Ogden, Utah. Graduate University of Utah Medical School, M.D. Degree, 1957. Internship now serving, Thomas Dee Memorial, Ogden.

Richard R. Kendrick, Ogden, Utah. Graduate University of Utah Medical School. M.D. Degree, 1957. Internship now serving, St. Benedict's Hospital, Ogden.

Permanent licenses were granted to the following physicians who received Temporary Licenses during the past six months:

Herbert A. Hartfield, Moscow, Graduate University of Louisville Medical School, Louisville, Kentucky. M.D. Degree, June 1928. Internship, St. Joseph's Infirmary, Louisville, Kentucky, 1928 to 1929. Granted TL-194 July 12, 1957. Granted Permanent License M-2380 on the basis of Kentucky written examination. School Health.

Roosevelt W. Kite, Sunnyside, Washington. Graduate University of Arkansas Medical School, Little Rock. M.D. Degree, June 1933. Internship Pulaski County Hospital, Little Rock, 1931 to 1933. Granted TL-199 November 4, 1957. Granted Permanent License M-2381 on the basis of Washington written examination. General.

Robert H. Wilkinson, Boise. Graduate Cornell University Medical College, New York. M.D. Degree, June 1951. Internship Rochester General Hospital, New York, 1951 to 1952. Granted TL-195, July 18, 1957. Granted Permanent License M-2382 on the basis of Pennsylvania written examination. Pediatrics.

James H. Cuykendall, Caldwell. Graduate University of Colorado Medical School, Denver. M.D. Degree, June 1950. Internship St. Joseph Hospital, Denver, 1950 to 1951. Granted TL-197, August 27, 1957. Granted Permanent License M-2383 on the basis of Colorado written examination. Radiology.

Robert F. Crawford, Hells Canyon. Graduate of Emory University Medical School, Atlanta. M.D. Degree June 1954. Internship Hospital of the University of Pennsylvania, Philadelphia, 1954 to 1955. Granted TL-198, October 28, 1957. Granted Permanent License M-2384 on the basis of Georgia written examination. General.

Paul R. Stowell, Salt Lake. Graduate of Yale School of Medicine, New Haven. M.D. Degree, June 1955. Internship Salt Lake General Hospital. Granted TL-190, April 1, 1957. Granted Permanent License M-2386 on the basis of Pennsylvania written examination. Padiatrics.

William E. Powers, Coeur d'Alene, Graduate University of Illinois, Chicago. M.D. Degree, June 1951. Internship Bames Hospital, St. Louis, 1951 to 1952. Granted TL-196 August 3, 1957. Granted Permanent License M-2387 on the basis of Missouri written examination. Radiology.

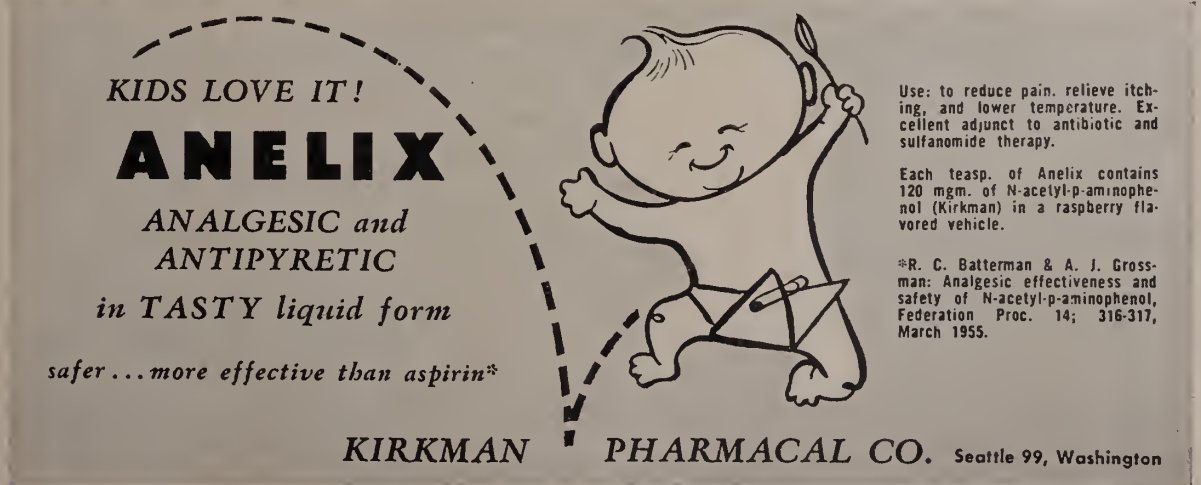
Licenses to practice medicine and surgery in Idaho were granted the following candidates on the basis of written examination in a state maintaining standards comparable to Idaho, or through certification of the National Board of Medical Examiners:

Elmer Carson Rigby, California. Graduate University of Utah. M.D. Degree, 1942. Internship Boston City Hospital, 1942 to 1943. Granted Permanent License M-2385 on the basis California written examination.

William E. Afton, Boise. Graduate University of Colorado Medical School. M.D. Degree, September 1944. Internship Mercy Hospital, Denver, 1945 to 1951. Granted Permanent License M-2388 on the basis of Colorado written examination. Psychiatry.

William R. Rumel, Salt Lake. Graduate Northwestern University. M.D. Degree 1936. Internship St. Luke's Hospital, Chicago. Granted Permanent License M-2389 on the basis of Illinois written examination.

(Continued on page 376)



(Continued from page 375)

Marion John Renner, Goodland, Kansas. Graduate University of Kansas. M.D. Degree, June 1922. Internship Cleveland City Hospital, Cleveland, 1922 to 1923. Granted Permanent License M-2390 on Kansas written examination. General.

Joseph E. Cooper, Pocatello. Graduate Hahnemann Medical School, Philadelphia. M.D. Degree 1938. Internship Wyoming Valley Hospital, Wilkes-Barre, Pennsylvania. Granted Permanent License M-2391 on the basis of Pennsylvania written examination. Surgery.

Fred E. Marinenau, Sandpoint. Graduate University of Iowa Medical School. M.D. Degree, June 1955. Internship United States Naval Hospital, Bremerton, Washington. Granted Permanent License M-2392 on the basis of Iowa written examination. General.

Carl L. Moller, Jr., Hells Canyon. Graduate Stanford University School of Medicine. M.D. Degree, June 1955. Internship San Francisco Hospital, 1955 to 1956. Granted Permanent License M-2393 on the basis of California written examination. General.

John W. Swartley, McCall. Graduate of University of Oregon Medical School, Portland. M.D. Degree, June 1952. Internship Fresno County Hospital, 1952 to 1953. Granted Permanent License M-2394 on the basis of California written examination. General.

Alton R. Stier, Washington. Graduate University of Oregon Medical School, Portland. M.D. Degree, June 1952. Internship Indianapolis General Hospital, Indianapolis, July 1952 to 1953. Granted Permanent License M-2395 on the basis of Oregon written examination. Pathology.

Robert J. Hartmann, Hawaii. Graduate of University of Illinois Medical School, Chicago. M.D. Degree, July 1946. Internship U.S. Naval Hospital, Great Lakes, Illinois, 1946 to 1947. Granted Permanent License M-2396 on the basis of Illinois written examination. General.

Two members of the Board, Chairman S. M. Poindexter, Boise, and Leland K. Krantz, Idaho Falls, attended the 54th Annual Congress on Medical Education and Licensure, and the Annual Meeting of the Federation of State Medical Boards in Chicago, February 8-12.

Dr. Poindexter served as Chairman of the Committee for Reports of Officers of the Federation, is a member of the five man Permanent Committee of the Federation for Examination Institutes, and attended a meeting of the Executive Committee of the Federation of which he is a member.

During the meetings, the Second Examination Institute was held. Dr. Krantz was the official Idaho Delegate to this session, and participated in discussions on anatomy, pathology, bacteriology, and surgery.

J. W. Marshall Receives Civic Award

Joseph W. Marshall of Twin Falls recently was presented with the Junior Chamber of Commerce senior citizen award for 1957. The presentation was made by Governor Robert E. Smylie at a banquet meeting. Dr. Marshall received the award for his activities in community life which include his church, service club, Boy Scouts and the medical profession.

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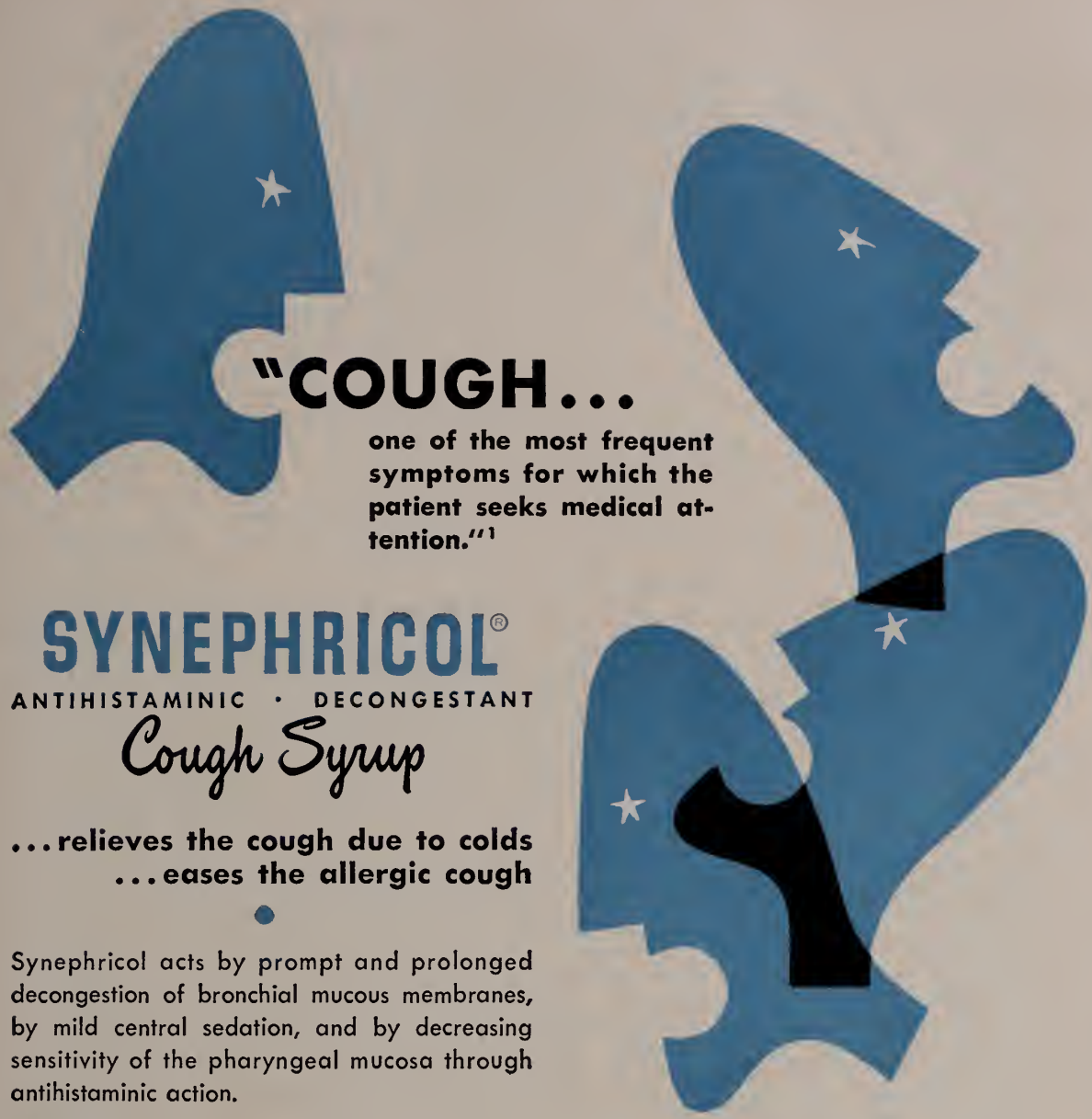
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Report from the Washington Office of AMA

Thomas H. Alphin, M.D.

Washington, D. C.—Those who are trying to follow the course of medical legislation, find an unusual situation developing in this session of Congress. All of Washington is being subjected to forces, some completely new, that often work at cross-purposes to each other. The result could be a moratorium on health legislation—or again it could be a flood of new laws.

At the start of the session, a new-born interest in science completely dominated the scene—by a frantic spending of billions of dollars we would overtake Russia. That was the theme in Washington, and it persisted despite a few quiet voices that asked whether Russia really had far outdistanced the U.S. or was merely exploiting a slight advantage.

Even before the American satellite started on its orbit, some of the panic had subsided, and most of the legislators had decided that advent of the space age had not removed all of the old problems and opportunities in legislation and politics. The familiar issues were still there, medical panaceas included.

The shock of Russian achievements will, at any rate, produce legislation designed to shore up our educational system. This seems to be generally accepted. For the medical profession, two provisions are of major interest. Scholarships would be either four years—possibly six—offering some assistance to premed students and in some cases to those in their first year of medical school. Also, fellowships would be available for medical and other graduates if they wanted to teach or go into research.

The administration's idea was a program that would cost a billion dollars; several leading Democrats joined in a bill proposing three billion dollars as a stimulant to mathematics and science.

But there are other factors to be reckoned with. For the first time a President set down in black and white in his budget just how he proposed to withdraw the federal government from some activities, or limit its participation, and turn the programs back to the states. Mr. Eisenhower wants to slow down on the Hill-Burton hsopital construction program and change its emphasis; he wants to mesh in some veterans' benefits with social security payments; he would have the states do more and the U.S. less in public assistance (where medical payments are a growing factor), and he hopes to get Congress to drop the $50 million a year program of grants to help build water treatment plants.

Whether Congress will follow the President's lead in the back-to-the-states movement is another question. At least he has said specifically what he thinks should be done, and when.

There was no expectation that the Russian scare would dilute politics this election year—and it has not. If anything, the partisans are struggling harder than ever to make records that will reflect glory on them next November. Some, of course, would be pressing for their projects regardless of the election.

So this is the prospect, in brief:

The Defense Department and science will get the major attention and the major money, but some may spill over into medicine.

There is some interest in a tight domestic budget and returning certain activities to the states, but old-fashioned politics combined with a fear of a continuing recession may again open up the federal purse.

Medical legislation, always a popular subject, may get more and more attention as the session rolls on. If so, the Forand bill among others would come immediately to the fore.

Notes:

Several developments in the legislative field on Jenkins-Keogh bills came early in the session. The American Thrift Assembly, representing some 10 million self-employed, urged favorable House Ways and Means action, and the American Medical Association pointed out that the proposal for tax deferment of money paid into retirement plans could help solve the problem of maldistribution of physicians.

In the Senate, a majority of the Small Business Committee introduced a tax relief bill with a J-K provision. This section would allow anyone

(Continued on page 381)

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(Continued from page 379)

not now benefitting from a qualified pension plan to set aside 10 per cent of annual income ($1,000 maximum). The bill went to Senate Finance Committee.

* * *

A limited number of medical scientists from this country and Russia will give lectures in each other's countries this year in an exchange program worked out by the State Department and the Soviet government. Also planned are exchanges of medical journals between medical libraries and of medical films. All these are part of a broad scientific, cultural and education program between the two nations. Details have not been worked out.

* * *

Six members of the Health Resources Advisory Committee have been named by Defense Mobilizer Gordon Gray. The committee, headed by Elmer Hess, advises government on health and medical problems in time of war or national emergency. Members are George C. Whitecotten, Oakland, Calif.; Franklin Yoder, Cheyenne, Wyo.; Mary Louise Gloechner, Conshocken, Pa.; Harold Oppice, D.D.S., Chicago; William Walsh, Washington, D. C., and Frances Graff, R.N., Grand Rapids, Mich.

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Surgery of Hernia, Three Days, June 5
General Surgery, Two Weeks, May 5; One Week, May 12
Fractures & Traumatic Surgery, Two Weeks, June 9
Breast & Thyroid Surgery, One Week, May 5

GYNECOLOGY & OBSTETRICS—
Office & Operative Gynecology, Two Weeks, April 14
Vaginal Approach at Pelvic Surgery, One Week, April 28
General & Surgical Obstetrics, Two Weeks, May 5

MEDICINE—General Review Course, Two Weeks, May 12
Electrocardiography, One Week Advanced Course, June 16
Hematology, One Week, June 2

PEDIATRICS—Two-Week Intensive Course, April 21

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, April 28
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World Congress of Gastroenterology To Meet in Washington, D.C., May 25-31

American Gastroenterological Association will host the first world congress to be held in the United States. More than 200 national and international scientists, physicians, surgeons, roentgenologists, and parasitologists will gather in Washington, D.C., May 25-31 at the World Congress of Gastroenterology to present the most recent clinical and investigative advances in gastroenterology.

The program will include five main symposia: Peptic Ulcer, Intestinal Infections and Infestations, Malabsorption, Nutrition and its Effect on the Liver and Pancreas, and Gastric Carcinoma. In addition, more than 150 papers will be presented. Throughout the entire meeting, simultaneous interpretation to and from the German language, Spanish, French and English will be available in the main auditorium.

To date, of the more than 200 individuals scheduled to appear on the program, 36 are from the U.S. and the remainder from 43 other countries. Representation on important scientific topics will be made from Argentina, Australia, Belgium, Brazil, British West Indies, Canada, Chile, Columbia, Cuba, Denmark, El Salvador, Dominican Republic, Egypt, France, Germany, Great Britain, Greece, Hungary, India, Israel, Italy, Japan, Mexico, Morocco, Netherlands, Norway, Paraguay, Peru, Poland, Portugal, Puerto Rico, Rumania, South Africa, Spain, Sweden, Switzerland, Syria and the U.S.

Those desiring further information about the World Congress, such as accommodations, registration and activities, are asked to contact: H. Marvin Pollard, M.D., Secretary General, World Congress of Gastroenterology, University Hospital, Ann Arbor, Michigan.

Pan-American Medical Women's Alliance To Meet in Miami, Florida, April 14-17

Sixth Congress of the Pan-American Medical Women's Alliance will be held in Miami, Florida, April 14-17 at the Hotel McAllister. All women physicians in the United States and Canada have been invited to attend the sessions which are held every two years alternately in North and South America.

The scientific program will be translated into both English and Spanish and will deal with medical problems of mutual interest to medical women of the two continents.

Requests for additional information should be addressed to: Hilla Sheriff, M.D., Director of Division of Maternal and Child Health, South Carolina State Board of Health, Columbia 1, S.C., or Eva Dodge, M.D., Department of Obstetrics and Gynecology, University of Arkansas, Little Rock, Ark.

Neurologists and Psychiatrists Set Meet

Annual convention of the North Pacific Society of Neurology and Psychiatry will be held April 11-12 at the Empress Hotel, Victoria, B. C. Guest speakers will be Augustus S. Rose, professor of neurology, University of California School of Medicine at Los Angeles and Brock Chisholm, president, World's Federation for Mental Health and former director of the World Health Organization.



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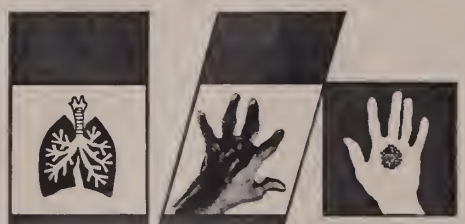
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Clinical Pathologic Conference

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Prepared under direction of Henry Tesluk, M.D.

Protocol

This was the fifth admission of this 53 year old white, single, retired logger and bartender who was admitted complaining of vomiting coffee-ground material and passing bloody stools.

Past history and personal habits: There is no record of any serious childhood diseases. In 1928, he claimed to have had a six week episode of rheumatism which had not bothered him since. He had been a heavy drinker since the age of 15, consuming up to 2 quarts a day, but claimed to have stopped drinking in August 1956. He smoked up to a package of cigarettes daily.

Present illness: The patient dated the onset of his illness at 1950 when he lacerated the dorsum of his left hand with a rusty nail. He developed lymphangitis which was first treated ineffectively with pencillin and then for three weeks with sulphonamides. Shortly after the institution of sulfa therapy, there was onset of chills and fever, marked pedal edema, arthralgia, and generalized discomfort. Associated with these symptoms was a wide-spread purpuric rash which was particularly evident on the lower extremities. This illness was marked by a course of remissions and exacerbations but disappeared entirely in 1955. As these symptoms improved, he began to lose his appetite and, by the summer of 1956, had lost 25 to 30 pounds. In August 1956, he began taking iron because of severe anemia. He improved on this regimen, regaining some weight. He still tired easily. He was first seen at the Mason Clinic in December 1956 with a complaint of easy fatiguability. A persistent, dry, hacking cough had been present for six months.

He appeared chronically ill with spider angiomata. Several petechiae were noted on the arms and about the ankles. He was blind in the right eye as a result of a childhood accident. The left sclera was strikingly injected with some areas of hemorrhage. Funduscopic examination showed grade II sclerotic changes. Mucous membranes of the mouth were pale. The heart had normal sinus rhythm with rate of 100. A grade II aortic systolic murmur was heard. Abdominal examination revealed an enlarged, firm, non-tender liver palpated six finger breadths below the costal margin. The spleen was not palpable. There was bilateral clubbing of the fingers.

Laboratory data: Hemoglobin 5.2 Gm.; packed cell volume 19 per cent; sedimentation rate 76/22 mm/hr.; white blood count 4550; differential lymphocytes 25, monocytes 36, neutrophils 17, stabs 3, and monoblasts 20; platelets (estimated) 150,000. Serologic tests for syphilis were nonreactive. Chemical studies: blood sugar 173, thymol turbidity 13.5 units and BSP retention of 5 per cent. Urinalysis: 1+ proteinuria, 6-8 granular casts/h.p.f. and 2-3 white cells/h.p.f. Roentgenologic studies indicated an infiltration in the left upper and mid-lung fields with a mediastinal shift to the left. Infiltrations were also seen in the right mid-lung field and lung base.

Subsequent laboratory data: Blood sugar 106; NPN 37, platelet count 10,000. Bone marrow showed depression of neutrophilic series with 20 per cent monocytoid blast forms, 8 per cent monocytes. GE ratio 2:1; erythroid elements present in normal proportions. Sputum smear was negative for acid fast organisms.

The patient was transfused with 8 units of blood and treated with 6-mercaptopurine to the toxicity limit. He was discharged after a week with hemoglobin of 11.9 Gm., packed cell volume of 40 per cent and white count of 2,000. A differential blood smear revealed a decrease in blast forms to 4.

At home the patient was alternated on 6-mercaptopurine and vitamin K therapy. Regular

(Continued on page 386)

(Continued from page 385)

hematologic studies showed little change in his blood picture. There were two episodes of epistaxis during this period.

The patient was readmitted to the hospital a month after discharge for intractable nose bleed. He also had vomited. Physical findings were the same as noted previously except for blood pressure of 75/40 with pulse rate of 104. Shotty inguinal lymph nodes were also palpable. At this time, hemoglobin was 2.6 Gm.; white blood count 4,625 with differential showing 3 blast forms. NPN was 89. The patient was given 7 units of blood and continued on a regimen of vitamin K. He was discharged in a few days with hemoglobin of 11.8 Gm. and leukocyte count of 4,880. He did well except for frequent nose bleeds and required several additional transfusions.

Final admission was required in March 1957 because of coffee-ground vomitus, which later was seen to be strongly guaiac positive. He was quite depressed at this time and unresponsive to questioning. He had noted a severe headache a week prior to admission but it had declined in intensity since its onset. Blood pressure was 140/80; pulse regular, 80 per minute and temperature normal. There was nucchal rigidity. Motor weakness was diffusely present without pupillary and ocular muscle involvement. Laboratory data: hemoglobin 12.4 Gm.; white blood count 5,700 with differential of 75 per cent monocytes but no blast forms; bleeding time 12 minutes, clotting time 7 minutes; platelets estimated 130,000 and prothrombin time 24.5 seconds with a control of 15 seconds. He was given 1 unit of blood and started on vitamin K. A spinal tap showed red cells 220/cu.mm.; protein of 130 mg.; sugar, 48 mg.; colloidal gold curve, 55555222100. Blood cultures were negative. After several days in the hospital, nucchal rigidity became less severe and the patient more responsive. Epistaxis was noted again and prednisilone was given in an effort to control the bleeding. Gross blood was also noted in the urine. He developed 104 F. fever. Left sided tonic-clonic seizures were noted. Terminally the hemoglobin was 11 Gm. with leukocyte count of 23,000. He became stuporous and died after three weeks in the hospital.

Differential Diagnosis

Rowland Pearsall: The patient for our conference today presents an extremely interesting and complicated problem in diagnosis. There seem to be two distinct phases in this patient's illness; whether they are actually related is somewhat difficult to say. From 1950 to 1956 he had recurring episodes of chills, fever, pedal edema, arthralgia and purpuric rash of the lower extremities. This may have been related to the use of a sulfa drug and penicillin for lymphangitis of his arm at the onset of this set of symptoms. If so, this suggests the possibility of a hypersensitivity angiitis or perhaps periarteritis nodosa. In the spring and summer of 1956 the patient began to lose weight and became anemic. He developed a rather dry, hacking cough along with spider angiomata of his skin. His physical examination revealed an enlarged liver, a heart murmur over the aortic area, and clubbing of the fingers. He had been blind in his right eye for many years, apparently from an accident.

This patient's laboratory studies revealed strong evidence for acute monoblastic leukemia with marked anemia, and thrombocytopenia. The only liver function tests available from the protocol are thymol turbidity, which was definitely increased, and prolonged prothrombin time. The BSP, however, was within normal limits. At this point we note that the chest film showed infiltration in the left upper and left mid-lung fields with mediastinal shift to the left. There were also minimal infiltrations in the right mid-lung field and right lung base. (See figure 1.) This film was made at the time of the initial



Fig. 1. Chest film showing bilateral pulmonary infiltration with some mediastinal left shift.

(Continued on page 388)

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(Continued from page 386)

examination. No further films were made. The reason for this obviously was that the diagnosis seemed to be that of acute leukemia and it was the opinion of the physicians seeing this patient that he most likely had leukemia infiltration in his lung. The possibility of tuberculosis was considered. However, this was not followed up. One sputum examination was done and this was negative on smear for acid fast organisms.

This patient's subsequent hospital course was consistent with the clinical diagnosis of acute leukemia—either myeloblastic or monoblastic in type—and cirrhosis of the liver. He had several admissions for anemia resulting from severe hemorrhage. The terminal portion of his illness began approximately four months after his initial visit, with severe headache and subsequent findings pointing to cerebral hemorrhage. Terminal convulsive seizures on the left indicated a right cerebral hemisphere lesion.

His blood smear at this time showed no blast forms but 75 per cent monocytes. The spinal fluid protein terminally was 130 with moderate numbers of red cells and white cells, there being 57 lymphocytes and 117 polys observed, along with xanthochromic fluid. Many non-syphilitic spinal fluids will show increased protein from old hemorrhage or tumor and it seems probable that the colloidal gold curve can be explained on this basis also. One would expect that the greatest change should be in tube 6 and 7 if this were tuberculosis meningitis. Apparently no cultures were done on the spinal fluid for tuberculosis.

The patient then had the following:

(1) A lung lesion, not particularly emphasized in the protocol and apparently not given great consideration during the patient's terminal illness. This lesion may have been due to leukemic infiltration, carcinoma of the lung, fungus disease or tuberculosis. We have no real evidence from the information available as to which one of these possibilities the patient actually had.

(2) An apparent liver lesion consistent with the diagnosis of cirrhosis, probably of the Laennec's type. This is supported by a chronic alcoholic history and physical findings. The laboratory studies available favor cirrhosis, although extensive studies were not done in this regard.

(3) Urinary tract bleeding from a renal or bladder lesion probably due to a hemorrhagic diathesis. One should consider the possibility of renal tuberculosis however, and perhaps neoplasm.

(4) A brain lesion, probably due to hemorrhage.

(5) Obvious GI bleeding terminally.

(6) Terminally the patient also had a heart murmur and fever. Actually this patient did not have a febrile illness although there is no detailed record of his temperature until his terminal admission. The possibility of bacterial endocarditis arises, but there seems little evidence to support this.

(7) We also have an eye lesion and a large liver. This should make one think of melanoma. However, we can find no clinical grounds on which to make this diagnosis.

(8) Lastly and most important, we have a patient with a bone marrow lesion. This must either be an acute leukemia, probably monoblastic in type, as was considered clinically, or a leukemoid reaction.

Could this be a leukemoid reaction? We know that a variety of pathologic conditions may be mistaken for leukemia just as leukemia may be mistaken for other conditions. Also, lymphosarcoma, particularly in children, may be characterized by large numbers of circulating neoplastic cells and simulate acute lymphogenous leukemia. This is said to occur most often when the lymphosarcoma has invaded a moveable organ such as the lung. In thinking about leukemoid reactions, it is important to realize that the differentiation of a leukemoid reaction from true leukemia may on rare occasions be extremely difficult, if not impossible, from either the clinical picture or cellular study. Fever, hemorrhage, splenomegaly, and adenopathy may occur. The causes of leukemoid reactions are as follows:

(1) Infection. Counts as high as 150,000 with 50 per cent myeloblasts have occurred in patients with overwhelming infections of practically any type, including tuberculosis. Lymphocytic reactions have occurred from infectious mononucleosis and other virus diseases, as well as tuberculosis, which have been practically indistinguishable from acute leukemia. Monocytic reactions, however, are most common with tuberculosis, and this is important to keep in mind, as it may apply to our patient.

(2) Intoxications, such as burns, mercury poisoning, and eclampsia, may result in a leukemoid reaction.

(3) Malignancies which have invaded the bone marrow may cause a leukemoid reaction, particularly metastatic carcinoma, multiple myeloma and Hodgkin's disease.

(4) Severe hemorrhage or hemolysis may cause a leukemoid reaction.

Tuberculosis is the most common cause of a leukemoid reaction. Usually it is miliary with lymph node or spleen involvement. Monocytosis is most likely to occur when the disease is progessive.

As far as the diagnosis of acute leukemia is concerned, the evidence favors the monoblastic type. Many hematologists, however, feel that one can not distinguish between the types of acute leukemia in many cases. As far as our patient is concerned, it is peculiar that no adenopathy except that of a few inguinal nodes is reported at any time. One would have expected cervical lymph node enlargement, particularly if it was monocytic in type. Splenomegaly of some degree usually occurs during the course of a patient's illness with acute leukemia. This patient did not have splenic enlargement as far as we know, but did have liver enlargement. This is also perhaps one small bit of evidence against this being acute leukemia. He did have purpura and a hemorrhagic diathesis. In monocytic leukemia one would expect more bleeding from the gingival margins with ulceration and swelling. This apparently did not occur in our patient.

As far as the respiratory tract is concerned, a mediastinal mass may be the first sign of acute leukemia. Our patient did have some evidence of mediastinal involvement as well as pulmonary involvement, and it is not at all uncommon in acute myeloblastic leukemia to have migratory pulmonary lesions. In the GI tract, infiltration is somewhat unusual in acute leukemia, but when it occurs, it is found most often in the monocytic type. Our patient did have evidence of GI involvement. The terminal renal bleeding could also be explained on the basis of leukemic infiltration somewhere in the genito-urinary tract.

Another interesting finding that this patient had was that of clubbed fingers. It is now believed that clubbed fingers represent an early manifestation of hypertrophic osteoarthropathy. In acquired hypertrophic osteoarthropathy, primary pulmonary neoplasm is the most common cause. It is rare with lung metastasis. Chronic intrathoracic infection is the next most common cause. Congenital cyanotic heart disease often results in clubbed fingers, as does subacute bacterial endocarditis. We have no real evidence that our patient had either one of these conditions. The third important type is that due to hepatic causes. Hypertrophic osteoarthropathy is most often seen with cholangiolitic biliary cirrhosis, in itself a rare condition. It occurs less often in portal than postnecrotic, and obstructive biliary cirrhosis, as well as liver abscess and hepatic amyloid disease. Our patient probably had portal cirrhosis.

From a gastro-intestinal standpoint, intestinal tuberculosis, ulcerative colitis, regional enteritis and other types of diarrheal diseases may cause clubbed fingers. There seems little evidence that our patient had any of these conditions. In attempting to explain this patient's entire illness from 1950 to his death, the symptoms observed in the first four or five years seem the most difficult to correlate. So-called allergic rheumatism is an ill defined entity. It has been reported as being characterized by recurring episodes of articular and periarticular swelling with tenderness, associated with fever, syphiloid rashes and a high incidence of allergic reactions.

In reference to allergy, one also wonders about the possibility of some type of allergic purpura, non-thrombocytopenic in type, particularly Schonlein's purpura. This latter disease, however, occurs most often in young adults. There is periarticular swelling without joint hemorrhage. It most often affects the lower extremities and is associated usually with purpura, skin lesions and fever. There is no evidence that our patient had this condition.

In summary, then, we have a patient with rather strong clinical evidence that acute leukemia was the primary pathologic process. There are certain atypical features present, however, and careful perusal of the possibility that the patient had a leukemoid reaction suggests that this indeed could have been the primary nature of the illness. If a leukemoid reaction did exist, then tuberculosis is the outstanding possibility and the only one that could explain the picture.

I favor the latter possibility and my final diagnosis on the patient is: *(1) Cirrhosis of the liver with hypertrophic osteoarthropathy, (2) hemorrhagic diasthesis and terminal cerebral hemorrhage with the primary proces being a leukemoid reaction of the monocytic type resulting from disseminated tuberculosis.*

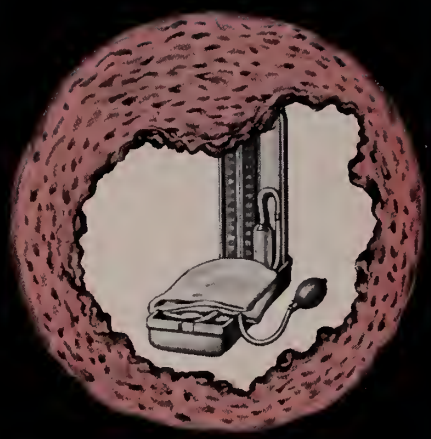
Gross Pathology

Henry Tesluk: This case proved to be complicated and I must compliment Dr. Pearsall on his effective and accurate survey of the possibilities.

(Continued on page 391)

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(Continued from page 389)

At autopsy the body showed considerable evidence of cachexia especially involving the head, neck and shoulders, and there were numerous areas of ecchymosis scattered about involving skin and subcutaneous tissues. No palpable lymph nodes were encountered.

There was a rather dense, old fibrous pericarditis present with numerous adhesions. A number of moderately large firm lymph nodes were encountered in the superior mediastinum. There were numerous fibrous adhesions involving the left lung. These appeared old in character. The left upper lobe in general appeared quite firm and nodular. Numerous small firm nodules were also encountered scattered about in the lower lobe and involved portions of the right lung. The left lung weighed 540 Gm., the right 730 Gm.

The liver was slightly enlarged, weighing 2,300 Gm., but its surfaces were smooth and shiny and on cut surface all one could notice was some accentuation of the lobular pattern. No focal lesions were noted. The spleen was normal in size, weighing 250 Gm., but appeared somewhat paler than normal. The gastro-intestinal tract was not unusual with exception of areas of ecchymosis involving the gastric mucosa. There were no definite areas of ulceration. There were numerous lymph nodes encountered in the vicinity of the pancreas. These were enlarged, moderately firm and on cut section showed central necrosis and caseation.

The kidneys were normal with the exception of ecchymosis involving the mucosa of the pelvocalyceal system. (See figure 2.) The brain showed definite thickening of the meninges at the base and a focal area of hemorrhage and encephalomalacia involving the left hippocampal gyrus over an area of about 1.5 cm. in diameter. (See figure 3.) The bone marrow at the time of autopsy appeared cellular and dark red without any evidence of focal lesions.



Fig. 2. Kidney, lung and mediastinal and abdominal lymph nodes. Caseating nodules in lung and nodes.

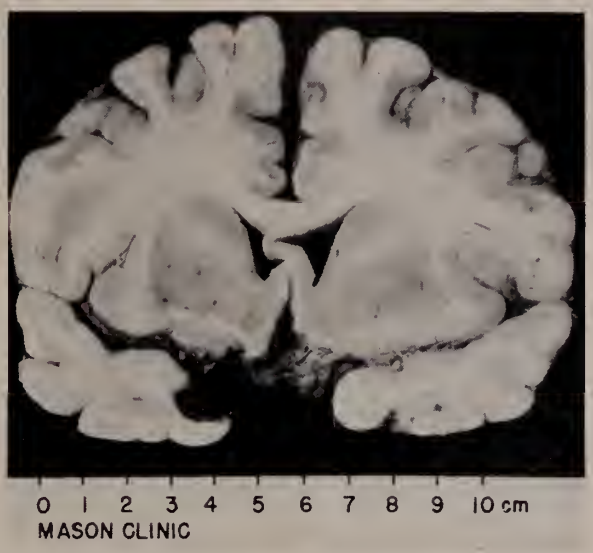


Fig. 3. Showing thickened meninges at base of brain. Hemorrhagic encephalomalacia, left temporal lobe.

In general, therefore, the gross autopsy findings failed to show any evidence for a leukemic involvement and, indeed, the major findings seemed to be confined to the pulmonary lesions, the lymph node involvement in the mediastinum and abdomen, and the thickening of the meninges encountered at the base of the brain.

Microscopic Pathology

Dr. Tesluk: Microscopic studies obtained from these organs showed rather surprising changes. The first section is from the left upper lobe and shows extensive granulomatous inflammation which are fairly discrete and which show a marked amount of caseation centrally with only a mild to moderate amount of cellular reaction surrounding them. There are, however, occasional epithelioid cells and rarely a multinucleated giant cell is encountered. One of these tubercles is endobronchial in character and shows caseation into the lumen. There are patchy areas of pulmonary edema and some tuberculous pneumonia surrounding a few of these lesions.

Sections through other portions of the lung

(Continued on page 392)

(Continued from page 391)

show somewhat better aeration but again, numerous medium sized granulomas are present. Acid fast preparation shows a scanty number of organisms in some of these granulomas. The section taken through the enlarged hilar nodes shows extensive caseation with the same type of granulomas. There is no evidence of a leukemic infiltration.

The next section is through liver and shows fairly normal architecture without any evidence of cirrhosis. There is, however, a focal granuloma in this section similar to those encountered in the lungs. This is a section through the spleen and is shown merely to indicate that there is no evidence of leukemic infiltration. Reticuloendothelial cells are fairly prominent and there are increased numbers of plasma cells scattered about. No granulomas are encountered.

The next section is through vertebral marrow. This shows some increase in cellularity with increased numbers of rather immature looking cells but there are at the same time islands of erythropoiesis present as well as numerous megakaryocytes. The preservation of the architecture again suggests evidence against leukemia. No definite granulomas are encountered. The next slide is an oil immersion field from bone marrow smears prior to death to demonstrate the nature of the cells thought to be leukemic. There are several very immature cells present. (See figure 4.)

The last section is through the central nervous system through the thickened meninges at the base and this shows an extensive granulomatous meningitis with numerous tubercles present. (See figure 5.) These are also present in the choroid plexus and in the ependymal lining. In addition, there is a definite area of hemorrhagic encephalomalacia in the lesion noted in the gross in the left hippocampal gyrus. There is no evidence anywhere of leukemic infiltrate.

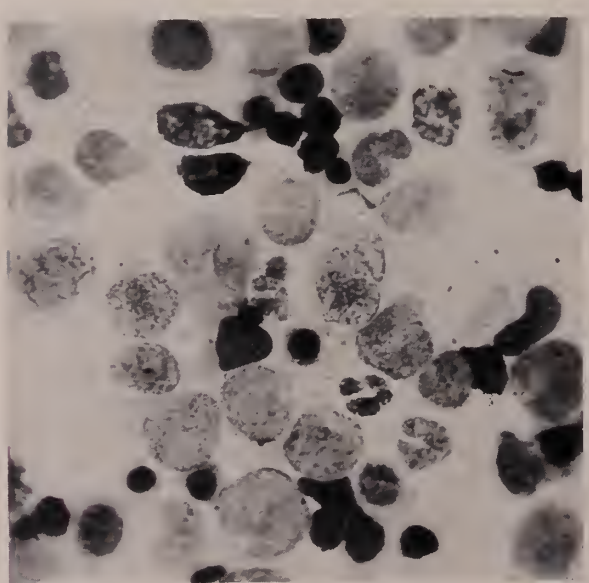


Fig. 4. Bone marrow smear (ante mortem). Shows numerous blast cells but also many mature forms with erythropoiesis are present. (Wright's stain, 667x.)

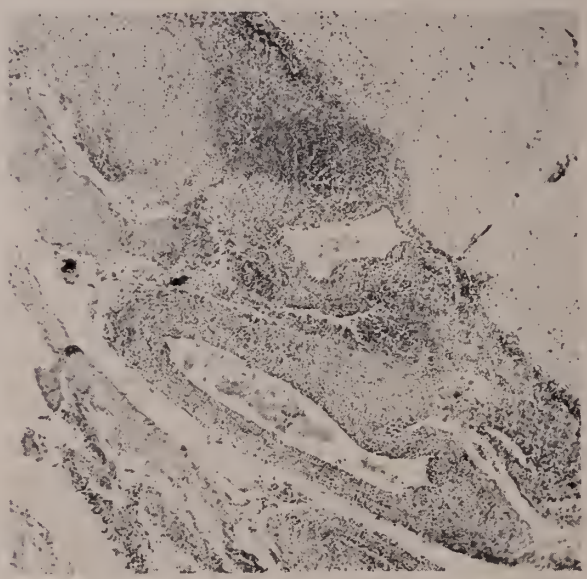


Fig. 5. Basilar meninges. Caseating granulomatous meningitis. (H & E stain, 80x.)

Conclusion

Dr. Tesluk: In summary, this patient had an extensive tuberculous infection involving lungs and lymph nodes primarily but showing some evidence of vascular spread with occasional lesions encountered in the liver and he terminally developed a tuberculous meningitis. The evidence available at the time of autopsy strongly suggests that there is no true leukemia present despite the marked atypicality of the cells encountered on bone marrow smear and peripheral blood examination.

Tuberculosis is known to be associated clinically on occasion with at least three types of disturbance from a hematologic standpoint—myelosclerosis with a leukoerythroblastic anemia, a leukemoid reaction and a peripheral pancytopenia. The pancytopenia is probably the best term to apply to the unusual situation encountered in this patient and this type of disturbance has been described frequently in the past in association with systemic tuberculosis.[1,2]

The disease apparently affects primarily middle aged men and at first is manifested by an anemia and terminally by fever and toxemia. These patients frequently show weight loss, sometimes have an enlarged spleen and a skin rash. The differential diagnosis from leukemia is sometimes extremely difficult and establishment of the presence of a tuberculous infection is sometimes difficult. Some authors have suggested that a punch biopsy of the liver may yield important information and certainly sections of bone marrow aspirates may on occasion disclose the presence of granulomas.

The pathogenesis in this disorder is of considerable interest. The hematologic phase of the disease has been produced experimentally in rabbits by Sabin[3] in 1927 and it is thought that it probably represents a reactive hyperplasia of hematopoietic tissue overly sensitized by the presence of tuberculosis and leading eventually to an exhaustion hypoplasia.

The tuberculosis in these patients frequently is somewhat atypical in that there is extensive caseation with little reaction. The syndrome should be appreciated and kept in mind by internists and hematologists especially, since they may encounter it in patients suspected of having leukemia.

There, of course, exists the possibility that leukemia was acually present in this patient. The bone marrow smears taken clinically have been reviewed and at least two hematologists practicing in this community have indicated that the diagnosis is still monocytic leukemia even knowing that the patient had tuberculosis. I think the fact that a similar reaction can be produced experimentally coupled with the knowledge that there is no evidence of leukemia from a morphologic standpoint at autopsy certainly places the burden of proof on their shoulders that leukemia is present in addition to tuberculosis. •

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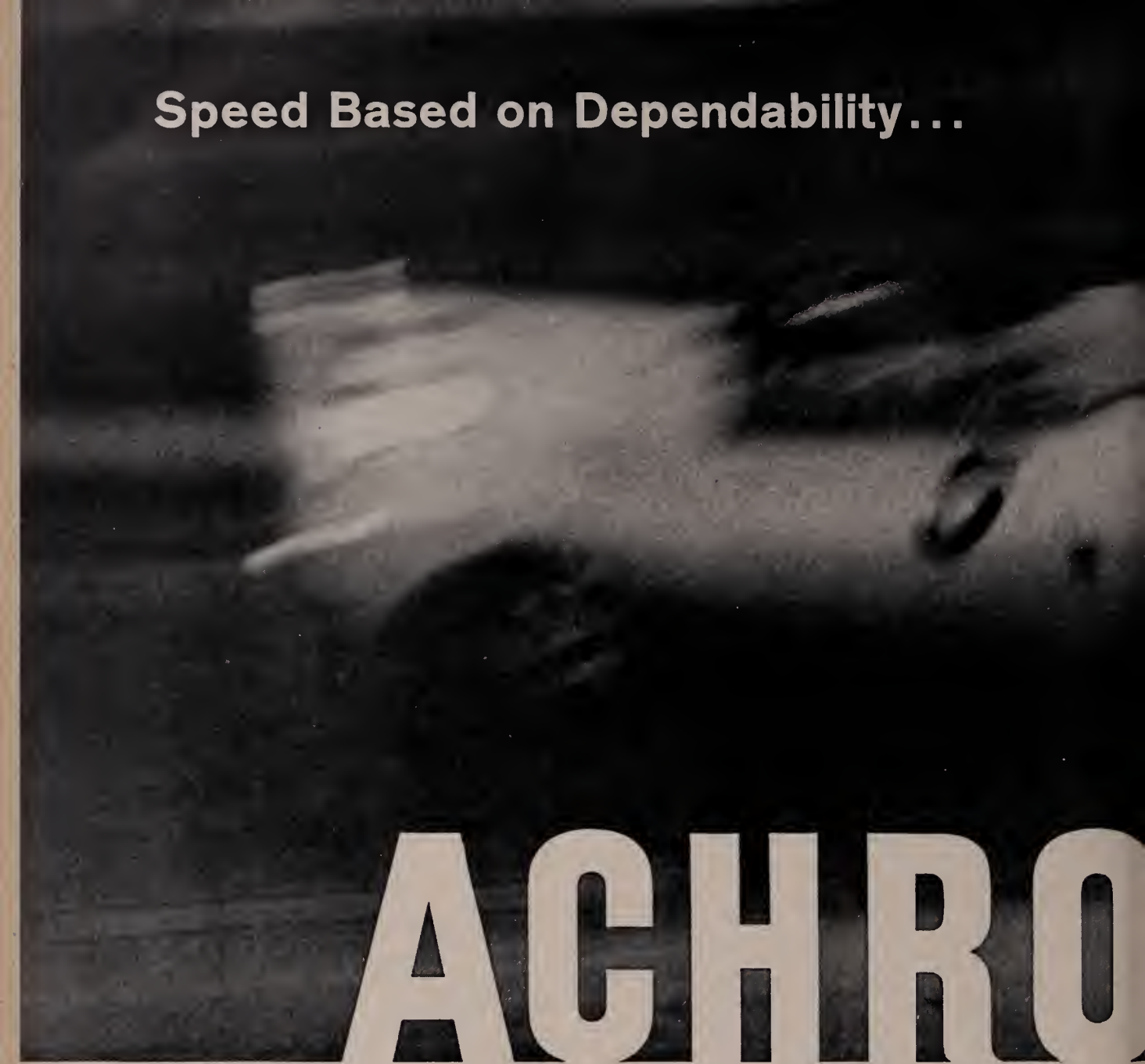
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*Rest, Edward J., and Todd, Wilbert R., Textbook of Biochemistry, 2nd Ed. (New York, Macmillan, 1955), p. 522; p. 1074-5.



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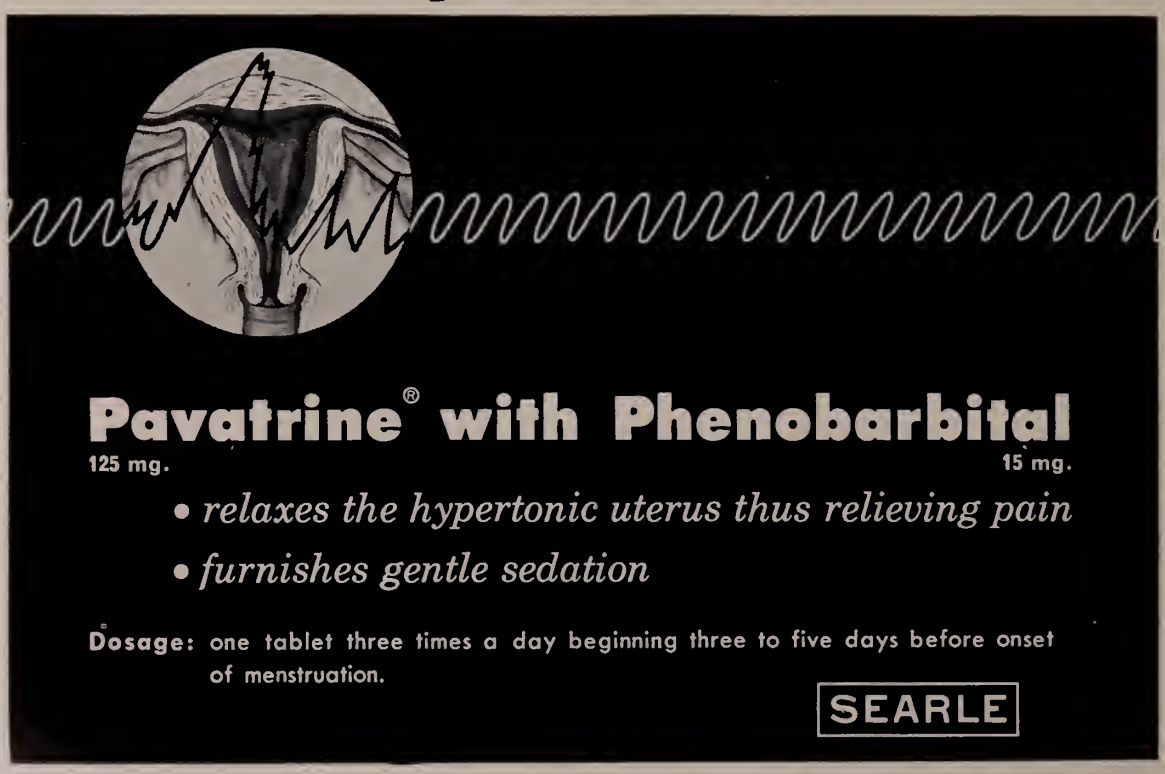
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RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Hospital Accreditation References. 136 pp. Price $3.25. American Hospital Association, Chicago. 1957.

Abnormal Labor. By L. A. Calkins, M.D., Department of Gynecology and Obstetrics, University of Kansas Medical Center, Kansas City, Kansas. 70 pp. Price $2.75. Charles C Thomas, Springfield, Ill. 1958.

Thrombelastography. By Pietro de Nicola, M.D., Associate Professor, Department of Medicine, University of Pavia, Italy. 110 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Mosby's Review of Practical Nursing. Ed. 2. 354 pp. Price $4.25. The C. V. Mosby Co., St. Louis. 1957.

The Postoperative Chest; Radiographic Considerations After Thoracic Surgery—Publication II in The John Alexander Monograph Series on Various Phases of Thoracic Surgery. By Hiram T. Langston, M.D., Chief of Surgery, Chicago State Tuberculosis Sanitarium; Clinical Associate Professor of Surgery, University of Illinois College of Medicine; Consultant, Thoracic Surgery, Veterans Administration; Attending Thoracic Surgeon, Grant Hospital of Chicago; Anton M. Pantone, M.D., Radiologist, Grant Hospital of Chicago; Radiologist, Chicago State Tuberculosis Sanitarium; Clinical Assitant Professor of Radiology, University of Illinois College of Medicine; Assistant Radiologist, Research and Education Hospital, Chicago; and Myron Melamed, M.D., Associate Radiologist, Grant Hospital of Chicago; Associate Radiologist, Chicago State Tuberculosis Sanitarium; Clinical Assistant Professor of Radiology, University of Illinois College of Medicine; Assistant Radiologist, Research and Educational Hospital, Chicago. Editor for the series, John D. Steele, M.D. 229 pp. Illustrated. Price $8.00. Charles C Thomas, Springfield, Ill. 1958.

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(Continued from page 399)

Physical Methods in Physiology. By W. T. Catton, M.Sc., Physiology Department, King's College, Newcastle-upon-Tyne. 375 pp. Illustrated. Price $10.00. Philosophical Library, New York. 1957.

A Textbook of Clinical Neurology; with an Introduction to the History of Neurology. Ed 8. By Israel S. Wechsler, M.D., Consulting Neurologist, The Mount Sinai Hospital, New York. 782 pp. Illustrated. Price $11.00. W. B. Saunders Company, Philadelphia. 1958.

Gynecologic and Obstetric Pathology; with Clinical and Endocrine Relations. Ed. 4. By Emil Novak, M.D., D.Sc. (Hon., Trinity College, Dublin; Tulane), F.A.C.S., F.R.C.O.G. (Hon.), Late Assistant Professor Emeritus of Gynecology, The Johns Hopkins Medical School; Gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore; Fellow and Past President, American Gynecological Society; and Edmund R. Novak, M.D., Assistant Professor of Gynecology, The Johns Hopkins Medical School; Gynecologist, Johns Hopkins, Bon Secours, Hospital for the Women of Maryland, and Union Memorial Hospitals, Baltimore. 650 pp. Illustrated. Price $14.00. W. B. Saunders Company, Philadelphia. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlamert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

PRE-EMPLOYMENT DISABILITY EVALUATION—Detailed Policies Regarding Applicants Applying for Employment with Special Reference to Various Disabilities. By William A. Kellogg, M.D., Clinical Professor of Surgery, New York Polyclinic Post-Graduate Medical School; Preface by H. L. Herschensohn, M.D., Medical Director, Douglas Aircraft Co., Inc., Santa Monica, Calif. 155 pp. Price $10.50. Charles C Thomas, Springfield, Ill. 1957.

Pre-Employment Disability Evaluation by William A. Kellogg clearly outlines the problems encountered by physicians who examine persons—with or without physical impairment—with the idea of placing the individual in a phase of industry that will eliminate undesirable results from both the standpoint of the individual and his employer. This manual covers the handicapped as well as the normal individual and describes the proper placement of each. It has been perforated both for tearout, and for easy insertion into a looseleaf folder for the addition of supplemental information from time to time. It is divided into 23 sections encompassing the body systems, general information as suggestions to the examining physician or nurse, and suggested medical forms.

In these sections are listed causes for rejection, re-examination, and restrictions for certain classifications of work, because of specific disease or impairment. In general, the volumn is of value as a basic guide to the nurse or physician who has had little experience in pre-employment examinations, but is also of value as a source of ready specific information for reference by the more experienced examiner.

Quentin W. Mack, M.D.

TAKE A LOOK AT NEW DIMETANE® THE UNEXCELLED ANTIHISTAMINE

ANATOMIES OF PAIN. By K. D. Keele, M.D., F.R.C.P., Consultant Physician, Ashford Hospital and Staines Hospital, England. 206 pages. Illustrated. Charles C Thomas, Springfield, Ill. 1957.

This little book presents an excellent history of the anatomic and physiologic basis of pain. The author does an admirable job in showing how changing ideas on this aspect of pain have flowed as a continuous process from the most ancient time until the present day. He presents many detailed data to disprove the rather prevalent misconception that nothing of value that can cast any useful or revealing light on the problem of pain can have existed previous to the important advances of the last century.

In the first chapter, which is entitled "The Sensory Heart," the author philosophises with the probable concept concerning pain held by primitive man and then relates historical findings which indicate the concept held by Egyptians, Mesopotamians, and the peoples of ancient India and China. The second chapter is devoted to a detailed account of the contribution of ancient Greek philosophers and physicians, beginning with Pythagoras in the 6th century B.C. and including such colossi as Alcmaeon, Anaxagoras, Empedocles, Diogenes, Democritus, Plato and others. The author devotes much of this chapter to a detailed analysis not only of the achievements of Aristotle's amazing intellectual powers, but also the magnitude of his errors concerning this problem. The third and fourth chapters contain important fragments on the history of pain from the time of Aristotle to the beginning of the 19th century. It includes contributions of Theophrastus, Herophilus, Galen, Avicenna, Leonardo da Vinci, Vesalius, Eustachius, William Harvey, Descartes and Von Haller. The fifth chapter contains many little known and frequently unappreciated events which led to the discovery of the spinothalamic tract and the thalamic relay stations to pain. The next chapter concerns concepts of pain mechanisms which have been developed during the 20th century and includes some of the work of Head, McKenzie, Dejerine, Sinclair, Wedell and their colleagues, Trotter, Lariche, Lorento de No, Lewis, Wolff and associates, among others. In all of these chapters the author has rendered accounts in an objective manner. In the seventh and last chapter, however, he expresses his personal views of the present concept on the anatomy of pain.

The book should prove of special value to those physicians particularly interested in the pain phenomenon, as well as to anatomists, physiologists, and and anyone interested in the history of medicine. Except for the last chapter, the book will prove of little or no clinical value to the busy practitioner.

John J. Bonica, M.D.

EAR, NOSE AND THROAT DYSFUNCTIONS DUE TO DEFICIENCIES AND IMBALANCES. By Sam E. Roberts, M.D., Associate Professor of Otolaryngology, University of Kansas School of Medicine, Kansas City, Missouri. Foreword by Morris Fishbein, M.D. 322 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

This author indictes the medical profession with too little clinical investigation and too much dependence on the negative results of clinical laboratories.

He emphasizes that teaching of the specialties should be by preceptorships and with greater attention to subclinical imbalances, deficiencies and subclinical deficiency diseases—such as the vitamin balance, the endocrine balance, the electrolyte balance, the control of body temperature, the maintenance of the blood glucose level and the supply of oxygen to the cells, to give a few examples. A maladjustment of any of these or other biochemical process can result in poor health evidenced by clinically apparent conditions which we are inclined to treat without adequate consideration of the biochemical background.

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(Continued on page 404)

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(Continued from page 401)

and personal history of the patient considered to have bizarre psychoneurotic complaints.

Dr. Roberts believes that with the exception of the antibiotics, chemotherapy and sedatives, therapeutics has reached an all time low, whereas with our increasing knowledge of nutrition, applied biochemistry, hormones and the aging process in which the gonads are so important, it should be at an all time high.

Many interesting case reports are presented along with dietary regimens.

This volume is interesting, refreshing and recommended reading for all doctors, especially all specialists—not strictly for otolaryngologists.

E. B. Parmelee, M.D.

THE PHYSICIAN'S OWN LIBRARY; Development, Care and Use. By May Louise Marshall, Librarian, Rudolph Matas Medical Library, Tulane University; Assistant, Orleans Parish Medical Society Library, New Orleans. 87 pp. Price $3.00. Charles C Thomas, Springfield, Ill. 1957.

This monograph on the basic planning of a physician's library fills a very definite need. It is based on sound theory in library practice and professional library experience but includes only the simple and practical methods which are applicable to the physician's library. For those who wish to pursue the subject further, references are included. Since most institutional libraries are in urban centers the physician's privately owned professional library assumes an increasing importance and it deserves careful planning and direction. The private library of a physician serves a distinctive purpose even where large institutional libraries are available. This monograph would be of great help in the organizing of any small library and required reading for the untrained medical librarian.

Chapter headings include: Libraries and the Physician, Planning the Library, Budgeting, Selection of Books and Journals, Ordering and Checking, Arrangement and Physical Care of Books and Journals, Library Records, Book Loan Services Available to the Physician, Photoduplication Services, Case Records in the Library, Use of the Physician's Own Library, The Medical Paper, Preparing an Index, and Plan for the Cooperative Organization of a Small Medical Library.

It is the author's hope "that the principles, suggetsions of methods and materials found practical in larger libraries will serve a useful purpose for the physician in the building and care of his own library and the fulfillment of his book need."

Ruth E. Harlamert, B.A., Libr.

ANTISEPTICS, DISINFECTANTS, FUNGICIDES, AND CHEMICAL AND PHYSICAL STERILIZATION. Ed. 2. Edited by George F. Reddish, Ph.D., Sc.D. (Hon.), St. Louis College of Pharmacy and Allied Sciences, St. Louis, Missouri. 67 Illustrations and 134 tables. 975 pp. Price $15.00. Lea & Febiger, Philadelphia. 1957.

This is a technical reference book which is well written and, for the type of work that it is, it is interesting. Much of the history and development of subject material is woven into each chapter. The observations, the methods and the prophecies of our antecedents are interesting and, considering the limitations of their era, the work of Semmelweis, Lister et al is truly amazing.

This work is current and pertinent. It should be available and be used by those responsible for our operating rooms, nurseries and wards. This book should be an asset to those plagued with resistant micrococcal morbidity and mortality. There is a full review of testing methods, antiseptics, disinfectants, preservatives and the physical methods of sterilization.

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UNEXPECTED REACTIONS TO MODERN THERAPEUTICS: ANTIBIOTICS. By Leo Schindel, M.D. 146 pp. Price $3.00. Charles C Thomas, Springfield, Ill. 1957.

It is necessary to be reminded occasionally of the shortcomings and real dangers of our present day "wonder drugs." This book does just that in less than 150 small pages. It can be read easily in a few hours. My enthusiasm of anticipation was dampened by the actual reading. It is undoubtedly factually correct and has extensive and apparently complete bibliography. Individual cases and authors' names are cited repeatedly. This would be helpful to the student of this subject but serves to make dull reading for the practitioner who just wants to refresh his memory. Each chapter deals with the development, use and adverse reactions of one antibiotic. In this manner, all the present day antibiotics used clinically are covered. It might have been helpful to have emphasized the value of oral penicillin in cutting down reactions. It was mentioned only in passing. There is a good chapter on antibiotic resistant bacteria which clearly points out the biggest problem in present day therapeutics.

In spite of being startled occasionally by words of British aetiology, and a few for whose spelling I could find no authority, I would say that the book is fairly well worth the time required to read it.

Peter Fisher, M.D.

HYPNOGRAPHY: A STUDY IN THE THERAPEUTIC USE OF HYPNOTIC PAINTING. By Ainslie Meares, MBBS, B. AGR. SC., DPM., Melbourne, Australia. 271 pp. Price $7.75. Charles C Thomas, Springfield, Ill. 1957.

The author gives a brief background of medical hypnosis as it has been traditionally used for the removal of symptoms by suggestion. Since psychoanalysis has entered the field of hypnosis it has greatly changed the concepts of hypnotherapy. In hypnoanalysis the patient verbally ventilates his repressed conflicts. A few years ago Meares found it difficult to get a hypnotized patient to verbally express himself. He gave the patient a pencil. The patient drew many pictures, and, while still under hypnosis, associated these drawings with his childhood conflicts. The author has called this technique "hypnography." Later he discovered that painting with black paint on white paper produced better results than drawing with a pencil.

The book is very well illustrated with hypnography. These resemble the paintings of children and are poor representations of the objects they wish to depict. Sexual conflicts are depicted with the inhibited realism of childhood. These paintings may express any event or events that have taken place from infancy to the present time.

One can well agree with the author that hypnography is a rather complicated procedure and requires both experience in hypnosis and real understanding of the dynamics of psychotherapy. It is a technique in which the prime aim is to help the patient to achieve insight, but at the same time it involves other mechanisms—suggestion, rapport, and abreaction—which have a therapeutic effect quite independent of insight.

On the whole, the author has done an excellent job in stimulating a keen interest in hypnosis and especially hypnography as an aid in diagnosis and treatment.

John E. Nelson, M.D.

ROENTGEN DIAGNOSIS OF ABDOMINAL TUMORS IN CHILDHOOD. By Charles M. Nice, Jr., M.D., Ph.D.; Alexander R. Margulis, M.D., and Leo G. Rigler, M.D., all from the Department of Radiology, University of Minnesota Medical School, Minneapolis, Minn. 75 pp. Illustrated. Price $4.00. Charles C Thomas, Springfield, Ill. 1957.

This concise book stresses simple x-ray techniques used to make possible anatomic localization of tumors. Chapters cover: masses in the region of the liver; other intraperitoneal masses (including spleen, mesenteric and omental cysts, lymphangioma of the

(Continued on page 406)

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(Continued from page 405)

mesentary, alimentary duplication cysts, muconium ileus, ovarian tumors, intussusception, appendiceal abscess and subphrenic abscess); renal and adrenal masses; and other extraperitoneal masses. Where possible, clinical and x-ray findings are pointed out so that a specific diagnosis can be made.

Pertinent publications are correlated with the authors' wide experience. A logical presentation follows which reviews and summarizes the diagnostic possibilities of abdominal tumors in childhood.

Many radiographs are reproduced, illustrating the method of arriving at the anatomic location of masses. Diagrams or retouching some pictures would help give a clearer and sharper idea of the problem under consideration.

The book's interest would be enhanced if the authors had listed the abdominal tumors in children that have been seen at the University of Minnesota and if they had given their "batting average" in making the diagnosis. Some tumors are listed as "not rare" and then it states that 200 or so tumors have been described in world literature. In some of these instances the authors' perspective of relativity seems to be somewhat out of balance. Closer editing would have improved some passages.

David P. Christie, M.D.

ORTHOPEDICS FOR THE GENERAL PRACTITIONER. By William E. Kenney, M.D., formerly Instructor of Orthopedic Surgery, Yale University School of Medicine, New Haven, Conn.; and Carroll B. Larson, M.D., Professor of Orthopedic Surgery and Chairman of Department of Orthopedic Surgery, State University of Iowa, Iowa City, Iowa. 413 pp. 180 illustrations. Price $11.50. The C. V. Mosby Company, St. Louis. 1957.

This is one of the better orthopedic books available today for the general practitioner. The section on congenital defects of orthopedics is excellent. There

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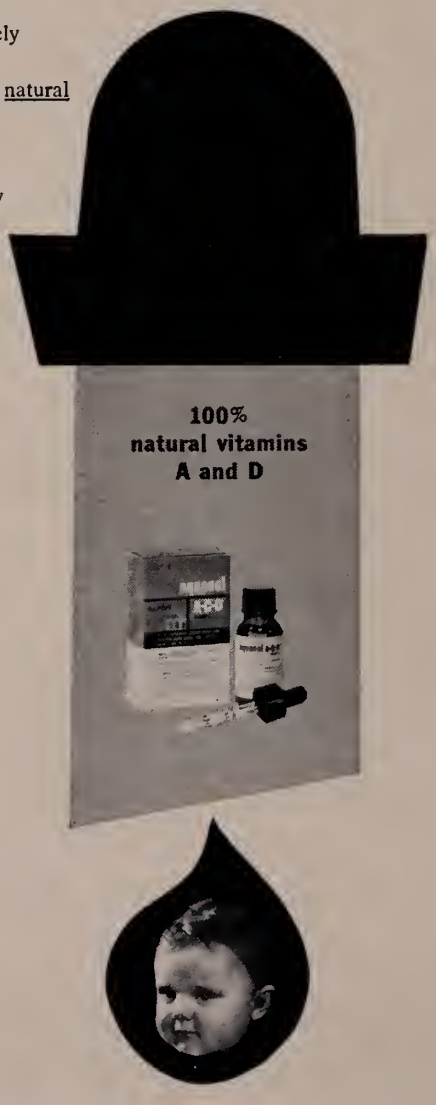
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are a few of the more common everyday fractures that are seen by the general practitioner, and many times treated by the general practitioner, that could possibly be just a little better covered—as type of treatment. The authors are weak in this point as to illustrations of treatment.

One of the nicer things about the book is that it is taken up in sections such as the shoulder, the knee, the back, and most of the pathologic, non-traumatic and traumatic diseases are covered in a running account under the proper sections. It does not leave you searching from one portion of the book to another, as the listing is anatomic rather than by disease.

This book is well worth the money and should be used by the majority of general practitioners.

Maurice E. Bryant, M.D.

SEX PERVERSIONS AND SEX CRIMES. By James Melvin Reinhardt, Ph.D., Professor of Criminology, University of Nebraska, Lincoln, Nebraska. 340 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1957.

The subject of this volume is not noted for characteristics of clarity, factuality or ease of investigation, but the premise that there is need for these to be attained seems quite valid. Therefore it is disappointing when this book fails to answer this need. It is discouraging to find that indeed it wanders inconclusively and in prolix confusion. It is disastrous to think that such a volume would be written "primarily for law enforcement officers, investigators, judges and prosecutors."

With the exception of chapter 13 in which the author details several brief case histories, the book appears to be without merit. Organization is lacking; documentation often at the level of newspaper clippings; definition hazy and style jumbled.

Though sex is here to stay, I doubt if this particular volume is.

Paul Alexander, M.D.

* * * * *

This book, "written for law enforcement officers, investigators, judges and prosecutors," could serve none of them any very useful purpose. The author seems to take every point of view: organic, hormonal, psychologic and psychocultural (whatever that is) but unfortunately does not drive home his main sociologic thesis. By the same token, he gives no clear view of perversions or sex crimes. Frequently, at the point where one would expect an answer or explanation he goes off into vague or trite statements.

Although there is a fair amount of factual material and even some clear thinking in places, the total adds nothing of value to the literature. Actually, with headings such as "The Flame of Passion" and "The Sorrowful Sodomist" followed by long and unedifying case histories, he seems to be appealing through sensationalism. I could forgive him that if he had done a good job of it. I do not recommend the book for anyone.

Robert L. Worthington, M.D.

URINE AND THE URINARY SEDIMENT; A PRACTICAL MANUAL AND ATLAS. Ed. 2. By Richard W. Lippman, M.D., Fellow of John Simon Guggenheim Memorial Foundation. 140 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

This publication presents in attractive format a mass of readable information easily misconstrued as being "the last word" on the urinary sediment . . . perhaps. I would like to believe that this is merely the author's effort to find the last word. It is an excellent effort and the result is pleasurable. There are several areas where differences of opinion may exist. The possibility of such differences are quite honestly and fairly pointed out by the author in his forward.

In checking a reference to febrile albuminuria, I question the validity of the statement: "The most common cause of proteinuria is fever." The reference reports an increase in quantitative albuminuria in a series of 40 patients receiving therapeutic hyperthermia. Gross albuminuria was not present in 75 per cent as quoted. I feel that this particular conclusion is not valid on basis of fragmentary investigation.

The photographic reproductions are beautiful, and these alone make a treasure of clinical reference. There are 36 new color photographs in this second edition, which added to the 56 in the first edition make 92 in all.

I am not competent to review all of the section on technical methods. However, the section on paper chromatography clarifies the recent advances in this field. Within the limits of my technical knowledge, no errata or omissions were present in the section on technique.

Graham S. McConnell, M.D.

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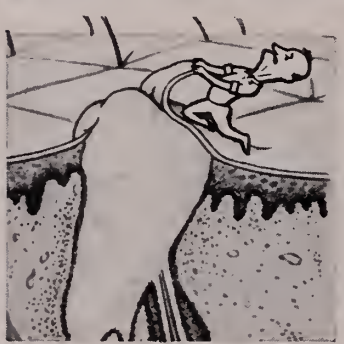


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Menne Honored in Retirement

More than two hundred of his friends assembled at the Aero Club, Portland, February 17 to honor Frank Menne and wish him well in his retirement to his native Wisconsin. Tangible evidence of their regard was announced toward the end of the ceremonies when toastmaster, Jeff Minckler, presented to Dr. and Mrs. Menne the title and keys to an automobile. Their daughter, Ann, had come from Wisconsin to be with them on the occasion.

Joseph Nohlgren was chairman of the committee which arranged the dinner. Speakers included Dr. Nohlgren, Warren Hunter, Charles Holman, Isador Brill, John Raaf, Arthur Rogers, Eugene Rockey, Joseph Spendlove, and Edward St. Pierre. All expressed regret upon losing Dr. Menne from the community and all noted his many contributions both profesional and personal. Humor had its day also, particularly from the toastmaster. Few speakers escaped his good natured barbs and several were the subject of pointed rhymes. Dr. Menne's response was a mixture of warm gratitude plus a few samples of the humor for which he is well known.

Remarks of two of the speakers are quoted below:

Remarks by Dr. Holman

"It is my privilege to represent the Dean and Faculty of the University of Oregon Medical School this evening. Among all of us here there is no one who looks forward too happily to the prospect of Dr. Menne's retirement and removal to distant Wisconsin. However, to those of us primarily interested in medical education, its past progress and its future, an occasion of this kind can be a most heart-warming and encouraging experience. As you know, Dr. Menne joined the faculty of the University of Oregon Medical School in 1916 and continued as a full-time faculty member for 28 years until 1944, fourteen years of that time as Professor and Head of the Department of Pathology. He has been an important and valuable member of the faculty on a volunteer basis from 1944 until the present time. This occasion gives us an opportunity to reflect on the tremendous progress of the medical school and the important role played by one individual in the successes that have been achieved.

"We know that it is important to a medical school to have adequate facilities and financial support if it is to progress. However, we also know that the most important factor in the quality of education received by medical students and in the school's contributions to scientific progress is the quality of its faculty. The status of the University of Oregon Medical School in these respects is vastly different today than it was in 1916. The chief reason it is different is because of the contributions made by men of vision and ability, dedicated to the principles of medical education through past years.

"I know of no one who has participated more effectively in the development of the basic teaching programs during the important years of the school's advancement than Frank Menne. The effectiveness of his participation has not been restricted to his knowledge of curriculum arrangement and content and the techniques of imparting scientific information to medical students, but has extended to the many other tremendously important characteristics essential in a physician which the skillful instructor imparts to his students chiefly by example. These include such characteristics as devotion to the welfare of others and to the ideals of medicine, and the development of an inquiring and discriminating curiosity which makes a student of the physician for the rest of his days.

"We take for granted many of the features of our present educational program, but let me remind you that many of these things were unheard of and largely unthought of in 1916 when Dr. Menne came to the University of Oregon Medical School. Dr. Menne introduced the clinical pathologic conference to the Medical School and this area. He instituted the first residency in pathology. Before that time he started the student assistant program in pathology in which a number of students not only learned the basic elements of pathology, but by their relationship with Dr. Menne were inspired with the ideals that have made them leaders in their respective fields of practice. You know that many medical schools, including ours, have affiliations for teaching purposes with Veterans Administration Hospitals through the Dean's Committee arrangement. This is a relatively recent development. Previously the policy of the Veterans Administration strongly disapproved such a relationship. During that period Dr. Menne was instrumental in gaining access for students to the Portland Veterans Hospital for selected teaching activities. This was the first time students were allowed access to the local Veterans Hospital and may well have been the first in any Veterans Hospital. He was a member of many important faculty committees during years when much of the basic groundwork was laid for the development of our modern medical education program. Dr. Menne's contributions were not

(Continued on page 410)

(Continued from page 409)

dependent on his knowledge of medical education alone. They were greatly enhanced by his warm and friendly personality, by his imagination, by his ability to effect an harmonious working relationship among his associates and by his ability to command the loyalty and respect of his assistants.

"A few days ago while discussing Dr. Menne's plan to move to Wisconsin, Dean Baird said, "Of all the members of the medical profession in the city of Portland, none would be missed as much, should be choose to leave this area, as Frank Menne."

"Dr. Menne, we all feel the same way and I hope you don't expect to get us out of your hair by moving a few thousand miles away because we still expect to call for your assistance and counsel in the future as we have in the past."

Remarks by Dr. Hunter

"To you who are young, forty-three years—nearly half a century—must seem a long time to have practiced medicine; but to others of us, including our honored guest, it is hardly more than a "watch in the night", so fleeting is time as one grows older.

"A few weeks from now will mark the self-designated end of a long, productive, honorable and happy professional career having its beginning when Frank R. Menne left the family farm near Fond du Lac to enroll as a premedical student in the University of Wisconsin, at that time offering only the first two years of medicine. Transferring to Rush Medical College in Chicago was a fortuitous circumstance for it led to a student assistantship under the eminent Edwin R. LeCount and close association with the equally noted Ludvig Hektoen. Under such inspiring tutelage it is no wonder that Frank Menne became a pathologist.

"It may surprise some of you to learn that when Dr. Menne came to the University of Oregon Medical School in 1916 he was, next to the late and revered Robert L. Benson, the only other trained pathologist in Oregon.

"The end of World War I saw the beginning of the phenomenal growth of the medical school and in this period of expansion Dr. Menne had many important roles, especially after he became Head of the Department of Pathology in 1929 and until his resignation in 1944 to direct the laboratories of St. Vincent's Hospital. It has been gratifying *to me* to have my former cheif continue as Clinical Professor from 1944 until the prcsent moment. During the years at St. Vincent's he has continued to teach surgical pathology to our students to serve on faculty committees and perhaps most importantly, has furthered medical education at all levels through his wisdom and leadership as Chairman of the Sommer Memorial Lectures which have brought so many eminent speakers to the Alumni Association and Oregon State Medical Society Meetings and to others held at St. Vincent's Hospital. Now, he has chosen to lay aside the multitude of professional duties and to return to his native Wisconsin in order to be near his daughter, Ann, her children and the still-surviving brothers and sisters.

"The preceding paragraphs are not intended to do more than sketch the highlights of our honor guest's professional and civic activities and do not begin to say what all who know Frank Menne would want to voice on an occasion such as this. Others well qualified by long and close contact with Dr. Menne will touch upon a number of these facets. Perhaps my 24 years of close association with Dr. Menne, first as a student assistant and later as a colleague in the Pathology Department, qualifying me to voice the words that any of the host of frienas would want to say were they standing here.

"First, I should like to mention some of the professional attainments of the man we honor. In medical school we obtain only currently acceptable basic education. Once graduated we are on our own; self-education is obligatory if one keeps up with the ever-advancing frontiers of knowledge. When Dr. Menne came into medicine the monumental changes wrought by bacteriology, immunology and prevention of a number of infectious diseases, together with a full understanding of the pathology of these diseases had largely been attained. The near half-century marking his own active part in medicine has witnessed even more astounding changes; insulin treatment of diabetes, the alleviation and control of infectious diseases first by the sulfonamides and later by the antibiotics, the vastly improved outlook in tuberculosis via antibiotics and surgery, the successful surgical attack upon the circulatory system, the better recognition and treatment of cancer; the use of isotope tracers to ferret out many hitherto hidden secrets of physiology and disease, to mention only some of the more important new things that have come into being. The challenge of continued education has been met by Dr. Menne personally and we honor him for it.

"He is to be credited with two enduring contributions toward the understanding of common and important disease processes, both coming at a time when chaotic thinking reigned. I refer to his clinico-pathologic classification of goiter in collaboration with the late Thomas M. Joyce and equally valuable study of bronchogenic carcinoma in conjunction with the late Marr Bisaillon. To this day, these sound concepts serve me well.

"Thirty-seven years ago the Coroner of Multnomah County first contracted with the medical school to perform autopsies and possibly this dates the beginning of Dr. Menne's long interest in legal medicine, at that time even more neglected than now and a field in which few doctors in the state were fitted to participate. Through your interest, knowledge and energy you aided materially in the solution of many crimes locally and in the Pacific Northwest. To you belongs the credit for initiating the Crime Detection Laboratory of the Oregon State Police. Through your wide acquaintance with district attorneys, sheriffs, and coroners you were able to establish the value of the autopsy and other scientific means of the solution of crime in this state. Not without reason were you invited to attend the meetings of these law-enforcement organizations and made an honorary member of some of them.

"A tenet of ancient Greek medicine charged every physician with the duty of teaching others who wished to learn the healing art and no greater privilege or responsibility can be laid upon one than this. Knowledge is the sine qua non of the teacher but without other priceless ingredients the teacher will fail. Contagious enthusiasm, a zeal for the truth, ability to speak and to write well, patience, understanding and a genuine liking for the student as a person are among the qualities that go to make a successful teacher. I know of no one who meets all of these criteria better than does Dr. Menne.

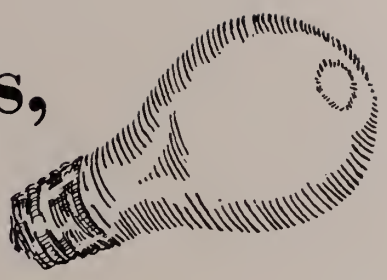
"Early in my association with Dr. Menne other qualities than those just mentioned became apparent and were manifested in his relationships with all who became student assistants and residents. Always he stood ready to encourage and to stimulate us to do better work, to praise when praise was due, to use the rod lightly when necessary. Above all was the bigness and generosity of his soul, absolute professional courtesy and fairness so often manifest by his custom of mentioning the names of younger associates before his own in speaking of scientific accomplishments. His great desire was to see us grow in knowledge and into responsibility as rapidly as we were able to do so. I am grateful indeed for having been brought up in such a scientific climate. To my personal knowledge many others share this feeling.

"Finally, I shall attempt to pay tribute to a facet of Dr. Menne that every one knows, appreciates and loves, namely that universally recognized, but difficult to describe, something in one's personality that attracts and makes warm, enthusiastic and enduring friends. His native German best sums this up in the noun Gemütlichkeit, meaning "good nature, geniality, comfortableness," Dr. Menne possesses all of these qualities to the highest degree. In any group his presence has always meant that friendliness and good humor reigned; as a host on any occasion he was always superb.

"Dr. Menne, we shall miss you, but our memories of all that we have liked so much about you will remain undimmed. We wish that many years of good health and happiness will be yours to enjoy."



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American Medical Association ..... **San Francisco, June 23-27, 1958**
Atlantic City, June 8-12, 1959
Clinical Meetings
Minneapolis, Dec. 2-5, 1958 **Dallas, Dec. 1-4, 1959**

Oregon State Medical Society ..... **Sept. 3-5, 1958, Portland**
Pres, V. W. Miller, Salem Sec., M. H. Parratt, Portland

Washington State Medical Association .... **Sept. 14-17, 1958, Spokane**
Pres., M. T. Harris, Spokane Sec., F. A. Tucker, Seattle

Idaho State Medical Association ..... **Sun Valley**
July 6-9, 1958 **June 14-17, 1959**
Pres., H. B. Waalley, Idaho Falls Sec., W. B. Rass, Nampa

Alaska Territorial Medical Association ..... **Fairbanks. May 15-17, 1958**
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Anchorage

North Pacific Society of Internal Medicine .... **Mar. 15, 1958, Spokane**
Pres., B. F. Francis, Seattle Sec., J. H. Cramptan, Seattle

North Pacific Society of Neurology and Psychiatry....**April 11-12, 1958**
Victoria, B.C.
Pres., D. E. Alcarn, Vancauver, B.C. Sec., R. M. Rankin, Seattle

Northwest Proctologic Society ..... **Sun Valley, Aug. 27-29, 1958**
Pres., A. E. Lewis, Seattle Sec., J. L. McKay, Seattle

Pacific Northwest Obstetrical and Gynecological Association .. **Seattle**
June 30-July 2, 1958
Pres, P. Rallins, Seattle Sec., C. L. Fearl, Portland

Pacific Northwest Society of Pathologists .... **May 2-3, 1958, Portland**
Pres., H. E. Taylar, Vancauver, B.C. Sec., J. E. Hill, Spokane

Pacific Northwest Society of Plastic and Reconstructive Surgery — May 23-24, 1958—Tacoma
Pres., E. Banfield, Tacoma Sec., W. D. Rawland, Portland

OREGON

Oregon Academy of General Practice ..... **Portland, Oct. 9-10, 1958**
Pres., B. L. Trelstad, Salem

Oregon Academy of Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. through May), Henry Thiele's, Portland
Pres., G. Lyman, Portland Sec., P. Myer, Portland

Oregon Dermatologic Society ..... **Portland, Second Wednesday (Nov., Jan.-Apr.)**
Pres., T S. Saunders, Portland Sec., L. F. Ray, Portland

Oregon Pathologists Association—Second Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., J. Minckler, Portland Sec., W. A. Haug, Portland

Oregon Radiological Society—Second Wednesday through school year—University Club, Portland
Pres., J. W. Laamis, Portland Sec., C. V. Allen, Portland

Oregon State Society of Anesthesiologists ..... **Portland, Third Friday (except June, July, Aug.)**
Pres., C. H. Hagmeier, Portland Sec., D. P. Dabsan, Beavertan

Portland Academy of Hypnosis ..... **Third Monday (Sept.-May)**
Pres., W. Lindsay, D D.S. Sec., H. Clagett Harding

Portland Academy of Pediatrics ..... **First Monday**
Pres., J. P. Whittemare Sec., L. H. Smith

Portland Surgical Society ..... **May 9, 10, 1958**
Pres., Russell Johnsrud Sec., C. G. Petersan

WASHINGTON

Puget Sound Academy of Ophthalmology and Otolaryngology — Third Tuesday (Oct.-May)—Seattle or Tacoma
Pres., E. G. Darland, Seattle Sec., J. L. Hargiss, Seattle

Seattle Academy of Surgery ..... **Seattle, Nov. 20, 1958**
Third Friday, Sept., Nov., Jan., Mar.
Pres., L. M. Penny Sec., D. D. Carlett

Seattle Gynecological Society ..... **Third Wednesday (except June, July, Aug., Dec., Feb.)**
Pres., P. G. Petersan Sec., L. B. Danaldsan

Seattle Pediatric Society ..... **Third Friday (Sept.-May), College Club**
Pres., Paul Betzald Sec., C. Razgay

Seattle Surgical Society ..... **March 21, 22, 1958**
Fourth Monday, Sept.-May
Pres., J. I. Tuell Sec., C. Wagner

Spokane Society of Internal Medicine ..... **April 11, 1958**
Pres., C. L. Sundberg Sec., E. M. Welty

Spokane Surgical Society ..... **April 12, 1958**
Pres., A. R. MacKay Sec., E. B. Caulter

Tacoma Academy of Internal Medicine ..... **March 8, 1958**
Pres., R. Dille Sec., T. J. Smith

Tacoma Surgical Club ..... **May 3, 1958**
Pres., E. R. Andersan Sec., D. Staatz

Washington Academy of General Practice....Yakima, May 30-31, 1958
Pres., J. O. Milligan, Seattle Sec., J. Ely, Oppartunity

Washington State Obstetrical Association ..... **Seattle, April 12, 1958**
Pres., M. W. Tampkins, Walla Walla Sec., C. W. Day, Seattle

Washington State Radiological Society ..... **Seattle**
Fourth Monday of each month, Sept. through May
Pres., J. N. Burkey, Seattle Sec., D. Christie, Seattle

Washington State Society of Anesthesiologists ..... **Fourth Friday (Sept.-May)**
Pres., K. F. Eather, Seattle Sec., D. E. Saltera, Seattle

Washington State Society of Internal Medicine..Oct. 16, 1958, Seattle
Pres., J. W. Skinner, Yakima Sec., W. Spickard, Seattle

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1. Gellis, S. S., McGuinnes, A. C., and Peters, M.: Am. J. M. Sc. *210*:661, 1956.
2. Bowers, D.: West. J. Surg. *61*:72, 1953.
3. Editorial: New England J. Med. *256*:1066, 1957.

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*T. M.

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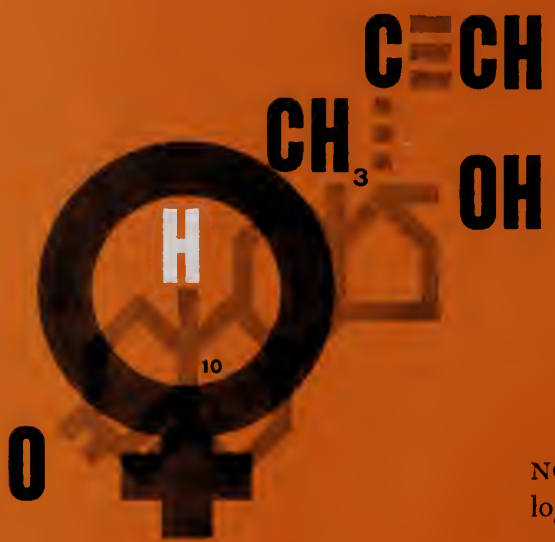
MEDICAL SCHOOL DEPARTMENT OF GENERAL PRACTICE

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GON ☆ WASHINGTON ☆ IDAHO ☆ ALASKA

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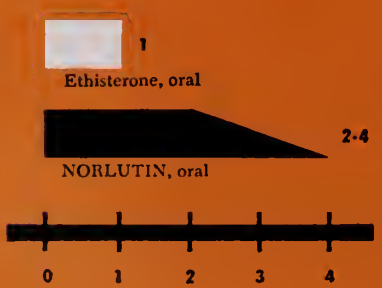
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REFERENCES: (1) Hertz, R.; Tullner, W., & Raffelt, E.: *Endocrinology* 54:228, 1954. (2) Greenblatt, R. B.: *J. Clin. Endocrinol.* 16:869, 1956. (3) Hertz, R.; Waite, J. H., & Thomas, L. B.: *Proc. Soc. Exper. Biol. & Med.* 91:418, 1956. (4) Tyler, E. T.: *J. Clin. Endocrinol.* 15:881, 1955. (5) Greenblatt, R. B., & Clark, S. L.: M. Clin. North America, Philadelphia, W. B. Saunders Co. (Mar.) 1957, p. 587.

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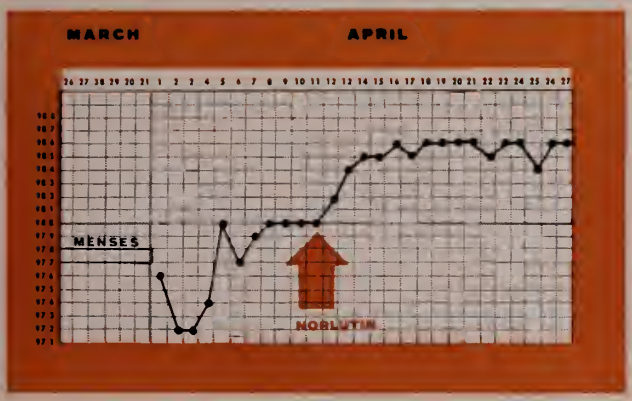
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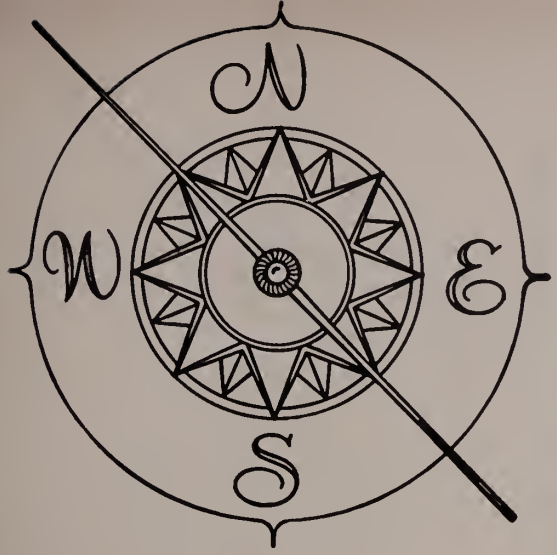
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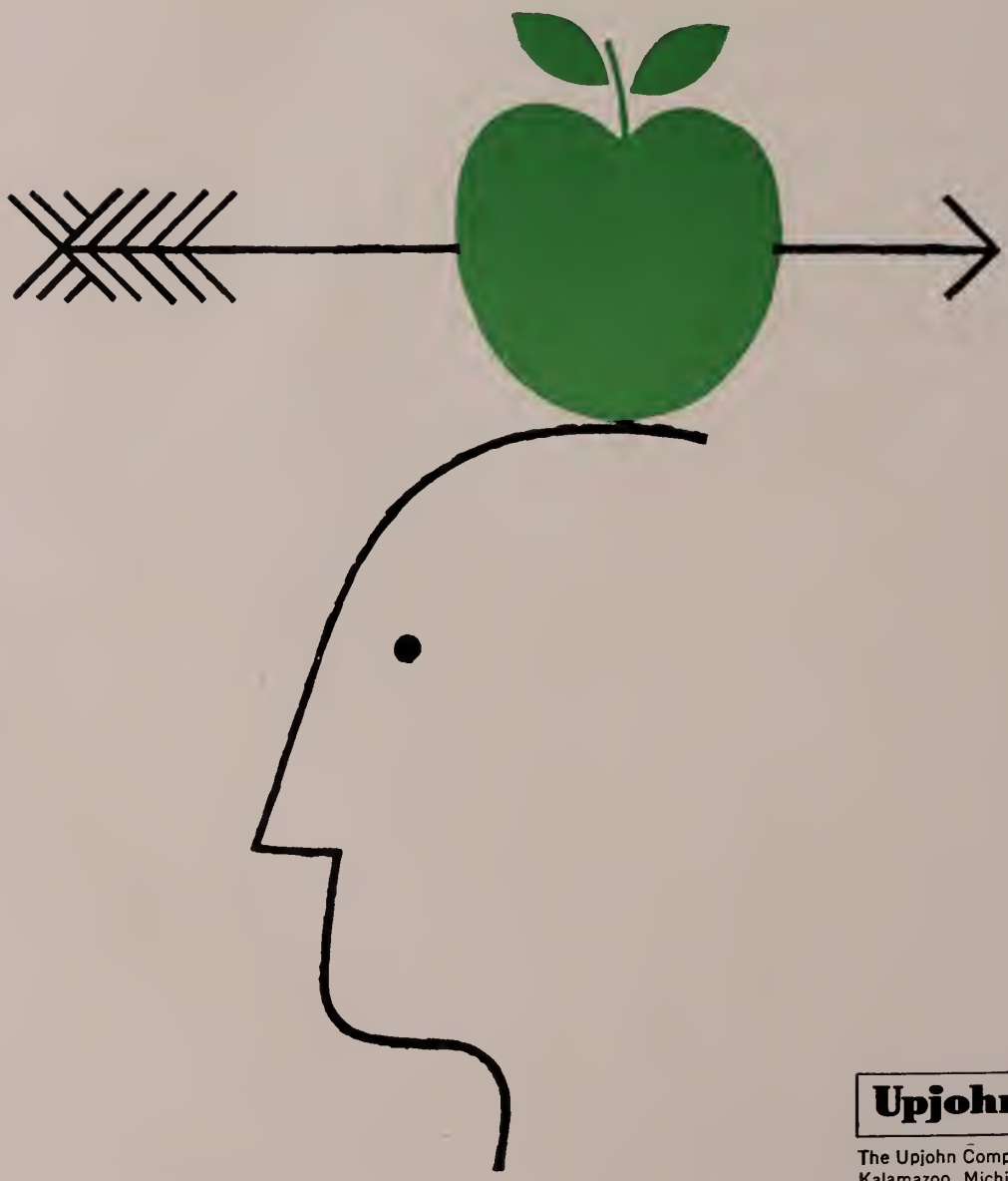
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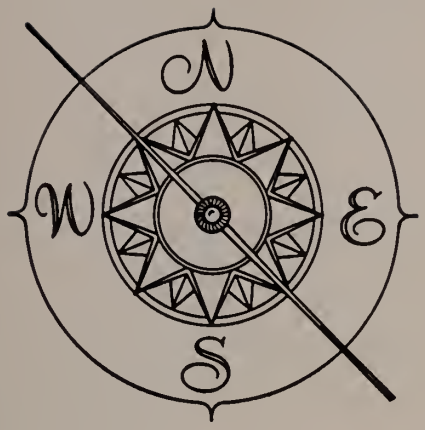
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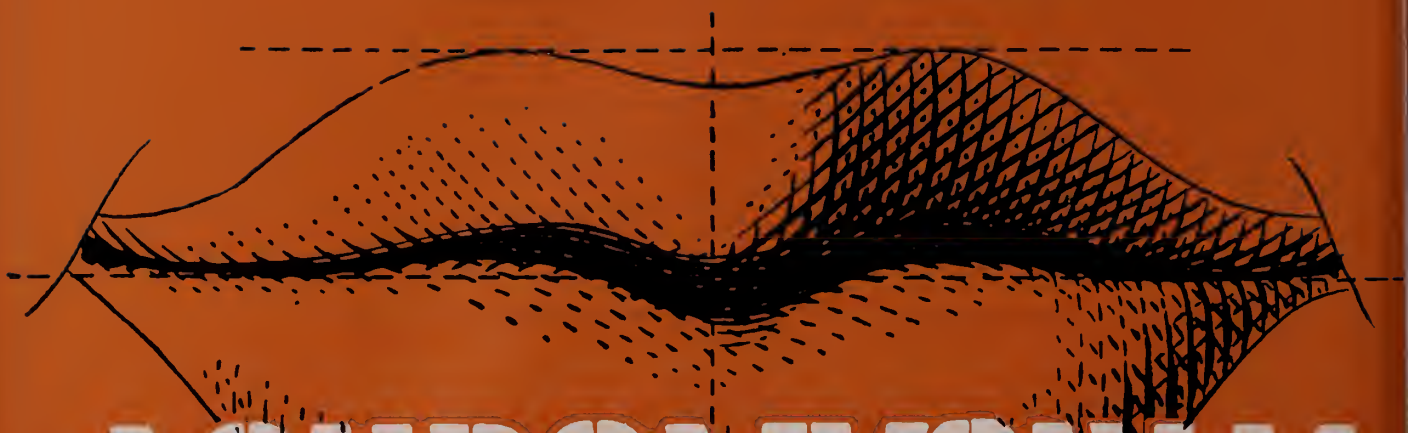
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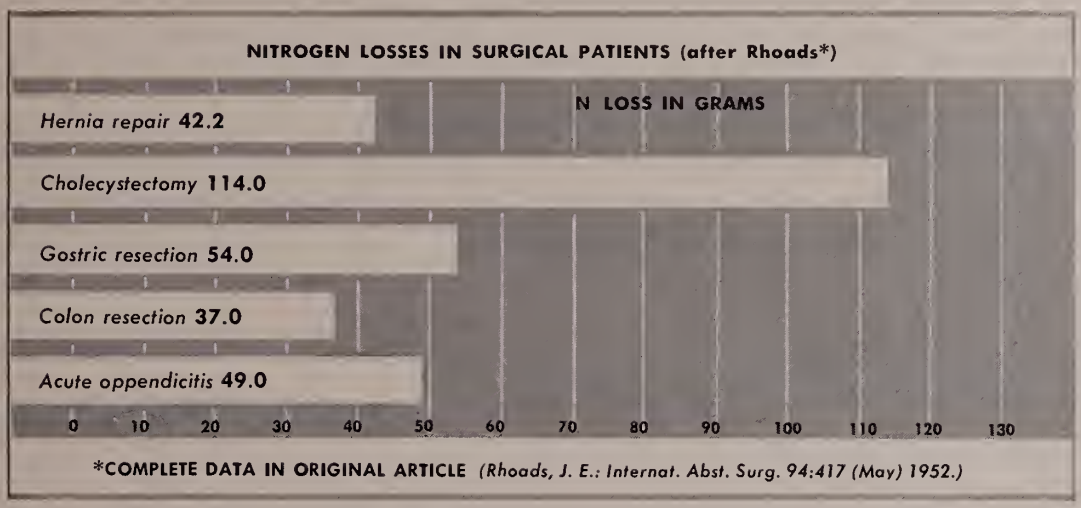
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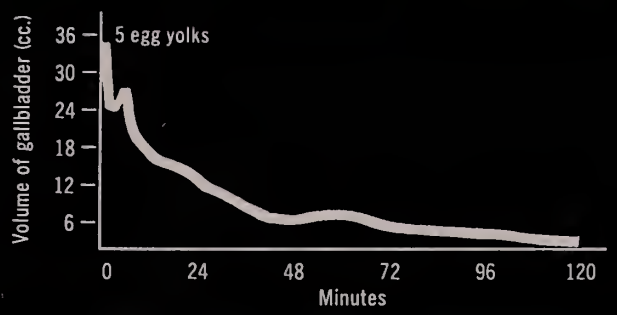
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*Adapted from Wright, S.: Applied Physiology, ed. 8, London, Oxford University Press, 1947, p. 734.

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Source—Lichtman, S. S.: Diseases of the Liver, Gallbladder and Bile Ducts, ed. 3, Philadelphia, Lea & Febiger, 1953, vol. 2, p. 1177.

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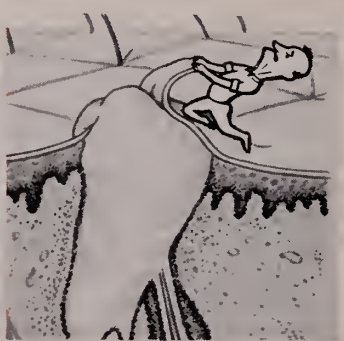


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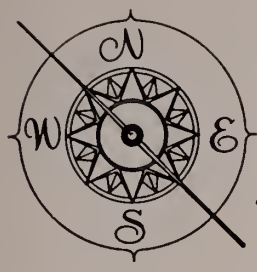
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CORRESPONDENCE

Standards

Spokane, Washington

EDITOR, NORTHWEST MEDICINE:

I have particularly enjoyed the February issue, possibly because there is a number of well written articles, with subjects in which I am interested. There is, however, one thing on which I think we should insist, in our articles, and that is that an indication be given of where the work which is reported is carried out and by whom. For example, in the article on arterial aneurysms the author obviously has not done 114 aneurysms in Tacoma since his arrival there, and it would be interesting to know whether these are all his own cases or cases on which he collaborated with other men. I assume, since he does not indicate otherwise, that they are his own. However, I think it makes a great deal of difference because one would assume, if one did not think about it, that they were done in his present hospital, but I doubt very much if this is the case. I think it is very important to know whether these operations are carried out under the conditions which exist in a local community hospital or whether they are carried out at a big University hospital, such as the one in Minneapolis where I gather he had his previous experience. When one reports an article on pure research, one always carefully at the begining of the article describes material and methods and the conditions under which the experiment was carried out, and I think in clinical research the source of material and some details regarding where, when and by whom it was carried out, should be included in the presentation of material. Otherwise, its evaluation is very difficult.

I do not mean this as criticism of the article because it certainly represents a tremendous experience, with an enviable mortality and morbidity.

With kindest regards, I am

Sincerely,
C. P. Schlicke, M.D.
Editorial Advisory Board
Tacoma, Washington

° ° °

EDITOR, NORTHWEST MEDICINE:

This is in response to the question raised in Dr. Schlicke's letter.

In the presentation of the article, Surgery of Major Arterial Aneurysms, a great deal of the clinical material was drawn from my experience at the University of Minnesota Hospitals while I was a supervisor of vascular surgery at the Mineapolis General Hospital and the University Hospitals. The 114 arterial aneurysms presented in this manuscript were drawn from date accumulated during my tenure in these hospitals as well as from private practice in the Tacoma, Washington, area. However no aneurysms were included in this series which had not had at least a four months postoperative follow-up at the time of writing the manuscript, for obvious reasons. The experience is by and large a personal one in that the patients were either operated upon by myself or immediately supervised by myself, assisting one of my surgical residents.

In this particular manuscript I was reluctant to enlarge upon the topic of recommending such major surgery including the use of the pump oxygenator in a local community hospital, primarily for the reason that those who advocate such procedures must accept some of the responsibility in doing so. At this time the establishment of facilities for extra corporeal circulation, a cardiac catheterization laboratory and facilities for performing major cardiovascular surgery in local community hospitals is more or less on an experimental basis. In the last eight months 23 such procedures of a major cardiovascular extent, largely arterial aneurysms including thoracic aneurysms using extra corporeal circulation, have been performed. There have been two deaths associated with these procedures. In one the patient expired 24 hours after the removal of a ruptured abdominal aneurysm, having undergone a long period of shock in the pre-operative interval. The second patient expired of a massive cerebral vascular accident on the fifth post-operative day following the resection of an abdominal aortic aneurysm.

I feel that the entire topic of the advisability of extending major surgery involving complicated techniques, multiple trained physicians and extremely complicated nursing service into the community hospital is one that must be performed as a pilot experiment and that a thorough evaluation of the results of these efforts may well be presented sometime in the future.

Very sincerely yours,
Thomas O. Murphy, M.D.

Legal Opinion on Publication of Case Records

American Medical Association
535 North Dearborn Street
Chicago 10, Illinois

EDITOR, NORTHWEST MEDICINE:

Dr. Austin Smith has asked me to answer your letter to him dated February 26, in which you referred to an article which appeared in the February 15 issue of *The Journal* concerning ownership of and access to hospital records.

Until your letter was received it did not occur to me that there would be any confusion concerning the authorship of that article. Now that I look at *The Journal*, I

(Continued on page 437)

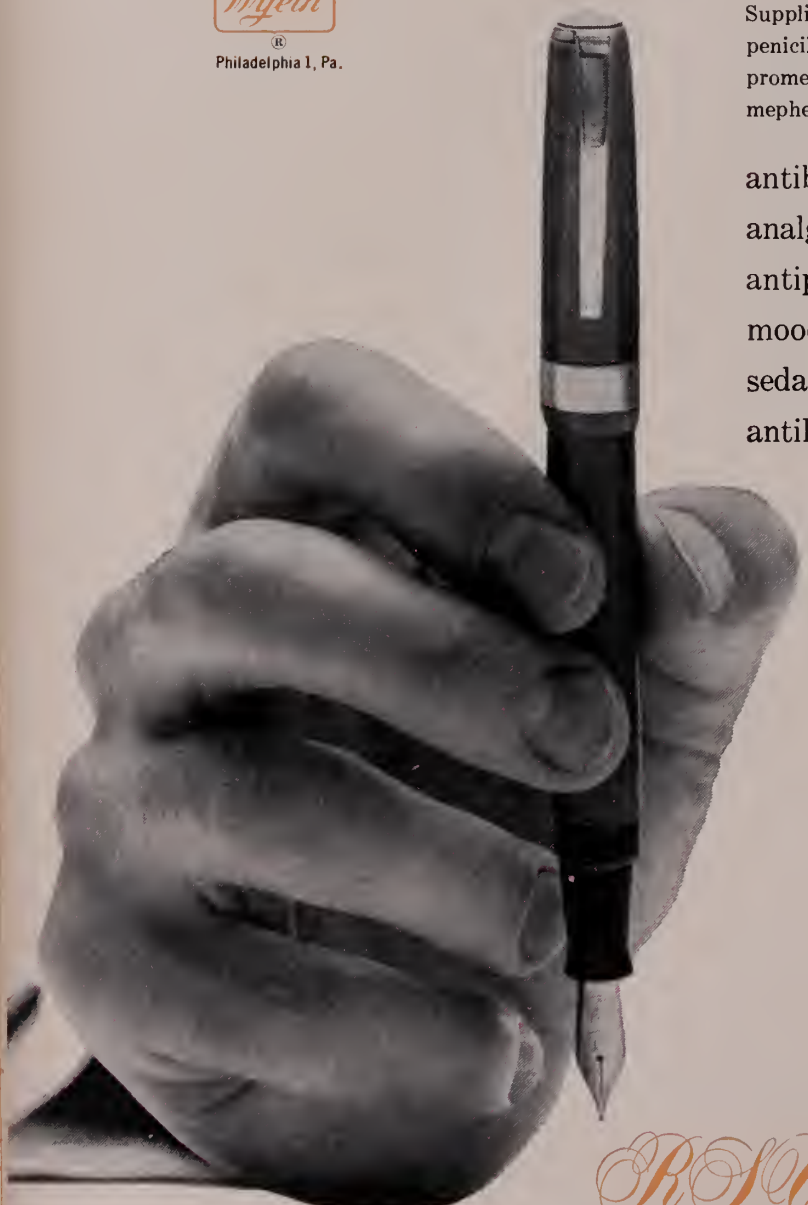
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(Continued from page 435)

see that some confusion might arise. On page 796 of *The Journal* in the column, "Medicine and the Law," there is a heading, "Opinions of the Judicial Council." Immediately following this heading there is an italicized statement that the Council has authorized the publication of the following *Opinion*. Actually, the opinion regarding an interpretation of the second sentence of Section 7 of the Principles of Medical Ethics is the only material on that page which emanated from the Judicial Council. It is not made clear that Ownership and Access to Hospital Records is a Law Department article on the legal aspects—not ethical—of ownership and access to hospital records.

Your quotations from the article, again not made by the Judicial Council but by the Law Department, represent the opinion of the Law Department. In our opinion a doctor does have the right to write up his cases. If he should find it helpful or even necessary to refer to hospital records to complete his scientific discussion in the interest of the advancement of science, he should be permitted to do so as long as he does not infringe upon an overriding right of someone else, i.e., the hospital or the patient. It is to be doubted that the hospital's physical ownership of records overrides the right of a physician to promote the advancement of medical science. It is to be doubted that the patient's right to privacy is violated in a write-up of a case when anonymity of patient is maintained.

From the legal point of view, I do not find reason to be concerned if a physician-author publishes a report of cases which may include information from hospital records of hospitals with which the author no longer has connection. I cannot visualize an action being brought for assault, trespass, plagiarism, invasion of privacy or the like, by the hospital, and being maintained successfully, except perhaps in the instance when a cause celebre is being reported and direct reference is made to the hospital and direct quotations are used from its records. I would be inclined to agree with your thought that the doctor-author either quotes from his own personal records or uses the hospital records to "refresh his recollection." Certainly—and again in the interest of medical science—your suggestion that difficulty would be avoided by deleting initials, hospital numbers and the names of hospitals is sound; and as a matter of policy should protect any medical journal.

I trust these comments have been helpful to you.

Sincerely,
Edwin J. Holman
Law Department

Army Procedure on Publication of Case Records

Department of the Army
Office of the Surgeon General
Washington 25, D.C.

EDITOR, NORTHWEST MEDICINE:

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Bryan C. T. Fenton
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EDITOR, NORTHWEST MEDICINE:

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(Continued on page 438)

(Continued from page 437)

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*Rest, Edward J., and Todd, Wilbert R., Textbook of Biochemistry, 2nd Ed. (New York, Macmillan, 1955), p. 522; p. 1074-5.



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NORTHWEST MEDICINE

VOLUME 57
NUMBER 4
APRIL, 1958

EDITORIAL

Education for General Practice

General practice has been defined many times in many ways. There is no agreement. Failure to agree has led to breakdown in communication, blockade to progress and finally to inability of the medical profession to deliver what it could and should provide for the public. Almost without exception, the definitions of general practice have attempted to describe it as an area. As it exists to a certain extent today, and as it could be under ideal conditions, general practice is not an area but an attitude.

This attitude is not solely the prerogative of the general practitioner. It is apparent in the practice of many specialists, more of whom would be willing to display it except for fear of incurring the wrath of other members of special groups. Some general practitioners do not have the general practice attitude but most possess it because of their experience with people who are ill or distraught or both. Medical care for the latter group does not all come out of a bottle nor is it terminated with an operation or the writing of a prescription. The general practice attitude is a human attitude toward human beings and has little to do with expertness in any field except to augment its application.

The medical profession has been the target of many attacks by politicians, by sensation seeking magazines and by demagogues within the profession. It is currently in the throes of a struggle over closed panel group practice and preliminary skirmishes indicate coming warfare which may well be disastrous. Frequency and severity of these attacks have increased almost in direct proportion to increased ultilization of science and technology in medicine. The attacks have come, not because we have added something new, but because we have forgotten something old.

A sick human being is not an appendix, a gallbladder, a lump in the breast or just a host for the newest virus. Illness does not anesthetize his emotions and no operation, save perhaps prefontal lobotomy, has yet been designed to separate man from his fears and his questions. The fact that he does not express his fears or ask his questions does not mean that they are not there or that they are not doing incalculable harm.

The fear-question part of any illness is seldom discovered when a patient goes through an assembly line of specialists or is referred around town to a variety of practitioners, each of whom is anxious to spend as little time as possible with the patient. Administering to the need of the patient to express his fears and ask his questions is a part of the general practice attitude and it should not be confined to any group. If such an attitude, which is old, could be properly combined with the knowledge of science and technology, which is new, the profession would find itself immune to the attacks of politicians, magazine writers and demagogues. If all physicians could accept the doctrine of individual responsibility of the individual physician to the individual patient, all attempts to destroy the private practice of medicine would fail. The uproar over closed panels such as the Kaiser system and the United Mine Workers Fund, would never have arisen.

Attitudes of those physicians now in practice

might be changed by a well directed campaign conducted by the American Medical Association and such an activity may become necessary if private practice is to be saved. What is more important, however, is to develop proper attitudes at the most impressionable period in the physician's life—while he is in medical school.

It makes no difference whether the student ultimately will engage in what is called general practice or whether his field will be more limited. His attitude should be the same.

There are general practitioners who are skillful surgeons, some who are competent obstetricians, some who are excellent pediatricians and some who are expert cardiologists. It is not likely that any one general practitioner is a skillful surgeon, a competent obstetrician, an excellent pediatrician and an expert cardiologist. Frequently, the only detectable difference between these high grade general practitioners and equally high grade specialists is one of atittude. Undoubtedly, many superior specialists do have the attitude and are able to benefit their patients by rendering care beyond the confines of a narrow field.

Davison, in this issue, presents a program for a general practice department in the medical school. Comments from other educators, published with Davison's article, are uniformly in agreement with his objectives. There is some disagreement with the method suggested. This does not appear to be a serious obstacle to progress. It is clear that much disagreement stems from lack of adequate definition of general practice and particularly from lack of general recognition that it is an attitude more than it is an area. Therefore, it is apparent that Davison does not go far enough. If the general practice attitude is the attitude best suited to carry modern science and technology to the public, without losing the art of our predecessors, it will be necessary to orient the whole school to that attitude. Davison's proposal appears to be a good first step.

The article and comments indicate that those most intimately concerned with medical education have devoted and are devoting a great deal of thought to the problem of how best to teach general practice. There is complete agreement that good general practitioners should be produced but not much agreement on how it should be done. Some would agree with Darley who would look far ahead to determine needs, then build a course to produce the desired type. Others would follow Dimond who wishes to go further, more quickly. He would start afresh, taking the student out of high school into seven years of entirely re-designed education, obviously pointed toward the general practice attitude. There are other veiwpoints not represented in the comments received. It is known that several schools have established departments of general practice or are contemplating such plan. Most encouraging, however, is the fact that there is much discussion and still much disagreement, indicating deep and purposeful interest of all concerned. Progress, not merely change, will appear after disagreement has exerted its stimulating effect on further thought. •

Circulation of Cancer Cells After Surgery

Every surgeon who operates for cancer should read a recent report on the frequency with which cancer cells may be found in the blood stream shortly after operation.[1] It has been known for many years that cancer cells can be found in the blood of some cancer patients. The authors of this report, however, have carried the investigation far enough to make the information significant. It might not be surprising that they found such cells in the blood from 9 of 28 patients with incurable cancer. Of much more import is their finding of the cells in blood from 12 of 72 cases deemed curable at operation.

As the samples of blood in which the cancer cells were identified were only 10 cc. each, and

1. Roberts, S., et al., Technique and results of isolation of cancer cells from the circulating blood, A.M.A. Arch. Surg. 76:334-346, (March) 1958.

as it is probable that cancer dissemination occurs in showers and in clumps, it would not be surprising that the true incidence of free cancer cells in the blood is much higher than reported.

That operating on a cancer is no benign procedure is evidenced by the fact that in 5 of their cases they found no cancer in the blood before surgery and cancer cells were found after operation. One case of carcinoma of the kidney showed a fourteenfold increase of cancer cells in the inferior vena cava postoperatively.

Efforts to prevent the implantation of free cancer cells after operation have been made. I have used mild radiation (800 r) pre-operatively in 10 cases of cancer of the breast. Unfortunately, tissue cultures of the tumors showed no inhibition of growth whatever after radiation.

It is possible that chemical inhibitors of tumor cells might be of real value if given before, during or just after cancer surgery. It also might be wise to develop a two stage technique for cancer surgery. The first stage would be the simple removal of the tumor in the least traumatic manner possible. The second stage would then be the cancer operation for removal of lymphatic spread after the original tumor had been removed. It would then be impossible to inadvertently massage living cancer cells into the blood stream from the primary growth. •

D. M.

Obesity

Those who are not enthusiastic about success in treating obesity will enjoy reading one of the Cornell Conference Reports published in the January 1 issue of *New York State Journal of Medicine*. This is largely a report by Albert Stunkard, Assistant Professor of Medicine at Cornell, who has been working in the field of obesity.

Using the criterion of loss of 20 pounds, he does not find treatment of obesity a very successful procedure. Neither have others been able to reduce more than 30 per cent of their patients by that amount, regardless of the method used. In fact, results seem to be rather uniform in degree of success which leads Stunkard to observe that the only universal element is the doctor-patient relationship. He concludes that the treatment becomes one of psychotherapy with treatment of the patient a great deal more important than treatment of the obesity.

Most obese persons will not continue treatment and of those who do, most will not lose weight. Of those who lose, most will regain what they have lost. Stunkard interviewed 100 patients at his clinic. Only 12 of these succeeded in losing more than 20 pounds during a year of observation and by the end of the period, 4 had regained the loss. Psychosomatic symptoms developed in half of the patients under treatment. These included nervousness, anxiety, restlessness, weakness and irritability.

These discouraging facts led Stunkard to an entirely new concept of his role as a physician in treating obesity. He no longer gives the patient a diet upon starting treatment but waits until the patient insists on a diet or voluntarily begins to reduce his food intake. Then the diet is given simply as a guide to prevent malnutrition. He has decided that psychotherapy is simply the influence exerted on the patient by the physician through psychologic means. Such influence is part of the physician-patient relationship and has its place in any treatment, including treatment of obesity.

Stunkard found that embarrassment over failure to lose weight caused most of his patients to discontinue their visits. This was further reason to assure the patient that the physician's interest was in the patient, regardless of the outcome of his dieting. The same factor applies in those who do succeed in losing weight. Many explained their failure to maintain weight reduction by stating that the physician seemed to lose interest after they had reached the predetermined goal.

Other factors were discussed in the report but the most interesting and by far the most significant influence in the obesity problem appears to be the one so important in many other conditions. The physician who is more interested in his patients than in their diseases seems to get the best results. •



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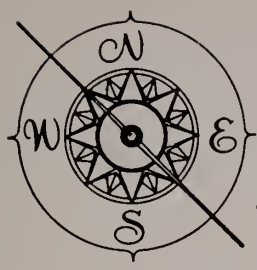
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ORIGINAL ARTICLES

The Medical School Department of General Practice

ROBERT A. DAVISON, M.D.
MEMPHIS, TENNESSEE

It is with deep appreciation that I have accepted your gracious invitation to speak to you on one of the most controversial topics in medical education today. It is a topic for which I have considerable emotional feeling as well as intellectual interest, but I will try to discuss it here in the light of my experiences and observations as an educator and physician without regard to other factors.

A department of general practice in a medical school needs definition as to purpose, function, peculiarities or differences from other already established departments, educational need, and qualifications of staff. Each of these must be carefully delineated in the light of the purpose of the medical school—*that of supplying well-trained physicians to meet the total medical needs of the country. There is no other proper reason for the existence of a medical school.*

True it must train men for research, for teaching, for opening new frontiers in the advancing science of medicine as well as for the active practice of medicine; but all of these find their respective purpose culminated in funnelling back their knowledge, experiences and findings to the clinician at the bedside, to the patient who is in need of the most complete care modern medicine has to offer.

Justification

With this as the purpose of the medical school, a department of general practice must justify its addition to the medical administration of the school by fulfilling the purpose of the school through adding to the curriculum a body of knowledge and instruction peculiar unto itself, such as cannot be properly and effectively added by already established specialty departments. This is a big order but it must be recognized that if it cannot be filled, there is little reason to disrupt the already over-crowded departmentalized school. If it can be filled, it becomes the responsibility of the medical school authorities to take steps to correct this omission in the undergraduate curriculum, if they are to fulfill the purpose of their school. The functions of a department of general practice should complement and supplement the already existing teaching functions of the specialty departments, just as in actual practice the reverse is true where the specialist complements, supplements and extends the general medical functions of the general practitioner.

General practice has been defined and redefined many times but for the purpose of this discussion I submit the following definition as more completely meeting our needs here:

> **General practice is that area of medical care performed by a doctor of medicine in conducting preventive, diagnostic and therapeutic measures in all fields of medicine, assuming a total continuing responsibility for the health of the individual or the family as a unit.**

This is a broad definition and differs from many definitions by not stipulating "limitations com-

Read before Section on General Practice, Washington State Medical Association, Seattle, Washington, September 17, 1957.

mensurate with training and ability." All physicians, regardless of their specialty, have limitations, even within their specialty, and such is not appropriate in a definition although it might be justifiable in a directive dealing more with ethics, morals and conduct than ability.

Essentials of a Department of General Practice

Because there seems to be some confusion and variance of thought on the definition of a department in a medical school, the following criteria are used here as being necessary for departmental status. A department has:

1. Its own fiscal allotment of university funds for operation.
2. Its own curricular student time allotment.
3. Its own physical space for operation.
4. Its own staff.
5. An appointed faculty department head.
6. Full responsibility for the content and presentation of the material taught.
7. Part or all of its courses required for graduation if it is an active teaching department.

For a department of general practice to be truly effective it must fulfill these seven criteria, otherwise it will be sufficiently unstable to ultimately lose its identity and standing. Its department head and members of its staff must be general practitioners.

Purposes of a Department of General Practice

Purposes of a department of general practice depend primarily on the assumption that the general practice or family doctor type practice is desirable and needed. The need has been recognized by medical educators, leaders in national medical organizations, other medical authorities, economists and those dealing intimately with national and community problems and needs. Opinion polls and spontaneous responses of the general public to lay articles on medicine indicate strongly that there is a desire, even a demand, by the public for well-trained available family doctors.

Purposes of a department of general practice may be noted, at least in part, as follows:

1. To complete the intramural representation of all fields of medical practice as a part of undergraduate training.
2. To give students an opportunity to associate with and be taught by physicians who have distinguished themselves in active general practice and thus learn what facilities and knowledge are necessary for doing good general medical practice.
3. To improve the level of medical practice in the community by:
   a. More direct training of the student choosing this field.
   b. Stimulation and promotion of graduate and postgraduate courses through the medical school for the practicing physician.
   c. Setting higher standards for future family physicians through more intimate medical school association and direction.
4. To coordinate and correlate the various specialty trainings of students for better total patient care.

(It can hardly be considered good teaching, with regard to assuming patient care, to have the student repeatedly referring his patients to other clinics because the complaints on that day do not happen to fall within the treatment scope of the student's assigned clinic, even though the student is competent to meet the patient's need. It is easy to translate this into student parlance of "passing the buck" or "sloughing the patient to another clinic," particularly if the day be hot or the patient load heavy and tiring. If we are to give the student confidence and responsibility enough to retain what he learns, it hardly seems pedagogically justifiable to meet his patient's multiple complaints by having him follow the patient through to several specialty consultations. That cumbersome process might be helpful in specialty teaching but at some point the school should insist that the student know enough to assume more than referral responsibility in the care of his patient. In the general practice clinic the student should have one staff man who should insist that the student draw upon his specialty training as completely as he can, seeking consultation only when his knowledge is exhausted. He can treat the diabetic hypertensive with leg ulcers and pelvic inflammatory disease without referring her to the diabetic clinic on Tuesday, hypertensive cardiovascular clinic this afternoon, GYN clinic Wednesday morning and surgery clinic for varicose ulcers Saturday morning. He studies his own abilities and knowledge to the fullest in response to the multiple needs of the patient before expanding his knowledge by consultations. This type of general-practice-responsibility-demanding student-teaching-clinic should be added to the specialty clinic teaching program of the school and not substitute for it.)

5. To teach the relationship of various specialties with the general practice of medicine at the undergraduate, postgraduate and active practice levels.

Functions of a Department of General Practice

Some of the functions of a department of general practice have been alluded to but others deserve more comment.

1. One of the functions is to bring together, as a functioning body of knowledge, all the specialty training of the student so that he may assume the proper responsibilities toward the needs of his patient. We discussed this more fully under purposes, which is hard to separate from functions.

2. To expose the student, during formative undergraduate years, to the home environment

of disease, sickness, recovery and rehabilitation and to direct him in meeting a physician's responsibility with his medical knowledge.

3. To give him an opportunity to see common diseases not seen in the hospital and to discover and see early disease in the home before it becomes of hospital or even clinic office severity.

4. To direct him in the clinical application of preventive medical measures so often taught by lecture and by occasional bedside comment, but lost to true learning for want of tangible application.

5. To demonstrate the proper breadth, as well as limitation, of general practice and the responsibility of the physician to be fully prepared to meet medical obligations as delineated.

6. To give instruction in family medical practice in home, office and hospital situations.

7. To give instruction in the availability of ancillary community medical and welfare aids.

Differences From Other Departments

Some of the peculiarities or differences from other already established departments in the medical school which give the department of general practice instructional value in excess of that of other departments might be listed as follows:

1. All phases or specialties of the practice of medicine are coordinated and brought into use for the expressed purpose of meeting the needs of the patient, no matter how multiple or few they may be. *It brings the student back to a broad base of thinking when approaching the patient.*

2. All members of a family, regardless of age or sex, enter into treatment consideration in restricted or broadest sense, for the sake of the health of the individual, the family, the community, or all three. *This gives the student a broad comprehensive concept of the entire field of medicine and orients him to the responsibility of being a doctor first, before being a therapeutic specialist.*

3. Emphasizes office and home management of illness, as contrasted to the usual specialist hospital management.

4. Scope of teaching has breadth rather than depth. The specialty of general practice has lateral rather than vertical scope. Eighty to 85 per cent of the training of the student is reemphasized in a *summarizing course resembling a practical examination designed specifically for teaching. The general practice clinic and home care course become a proving ground both to the student and the faculty as to what further training the student might find desirable as he seeks his future place in American medicine.*

5. A course in Family Medicine emphasizes the importance of recognizing the total family constellation in the practice management of any one individual. Preventive as well as therapeutic medicine finds a natural and realistic accent in the student's training.

Educational Need For a Department of General Practice

Recognition or denial of the educational need for a department of general practice within a medical school curriculum rests with the acceptance or rejection of the foregoing objectives in student teaching. Medical education cannot ignore the need to add this type of teaching to the curriculum, even at the expense of diluting some of the already existing courses. Many schools have already changed their entire curriculum in an attempt to meet some of the objectives mentioned. An active and expanded department of general practice must offer these educational advantages if it is to justify itself. A well-organized, fully supported curriculum of a department of general practice can offer many of these educational advantages. •

62 S. Dunlap Street.

Prepublication copies of the above paper were sent to 78 deans of medical schools and four other educators in important positions. Twenty-seven deans replied. Sixteen of the letters were simple acknowledgement, usually with an expression of interest, but did not include permission to publish. Eleven of the fourteen letters published below are from deans and one is from a department head. These replies, therefore, reflect the situation in 15 per cent of the nation's 78 medical schools. Some schools known to be contemplating or having established departments of general practice are not represented in the replies. Ed.

Association of American Medical Colleges
2530 Ridge Avenue
Evanston, Illinois

EDITOR, NORTHWEST MEDICINE:

I think the best way to respond to your inquiry of February 4 is to ignore the confusions and tensions of the present and to look ahead and anticipate the way things will or ought to be in the near future.

In doing this I will be extending the remarks I made in a letter I wrote on May 7, 1957, to Herman G. Weiskotten, presently Chairman of the AMA Committee on Preparation for General Practice.

I have come to believe that whatever we do, we must accept the fact that the knowledge important to medicine is going to increase at an ever-accelerating pace and that specialism, which has arisen in response to this expanding body of knowledge, is going to increase at the same time. I think we must also accept as fact, that as medical knowledge continues to increase, we can no longer produce physicians who can effectively carry on according to our present concepts of general practice. And yet, as medical knowledge grows and as specialism grows, I believe that the need for a special kind of generalist who will need a special kind of training will definitely emerge. In fact I think this need is apparent now.

What I am really trying to say is that instead of attempting to resolve the problems of general medical care in terms of the status quo, we should look ahead in the light of present trends and try to anticipate what the capacities and patterns of medical service will be or ought to be, say 20 years from now. It is the men and women we are educating now who will be carrying the burden by then—not us. The kind of general practice residencies that are being offered today are geared to the status quo and in terms of present-day trends are not realistic.

What do I mean when I say we will need a special kind of generalist? I think this physician had best be described in terms of what he will do, rather than in terms of what he will not do.

He must be qualified to serve as the health counsellor throughout the entire life span of any given individual. He will be dedicated to the philosophy of continuing care. He must be trained to supervise the care of infants, adolescents, mature adults and old people. The management of chronic illness will be his forte; rehabilitation will be his passion. He must be an astute diagnostician, particularly if he is to recognize and intelligently control significant disease in its beginnings. His function will be to maintain and promote health as well as to prevent or combat disease. There is a very impressive body of knowledge that is now accumulating in the area of health management and disease prevention. An intimate part of this comes from the field of mental health and psychosomatic medicine. Therefore, this physician must be well trained in mental hygiene and clinical psychiatry.

This physician's training in the medical and surgical specialties will only go far enough to give him an understanding of their diagnostic and therapeutic concepts. He will not be trained in the technical aspects of any of the surgical specialties. I would not want him to have training in obstetrics. With modern communications and transportation developing as they are and with our population becoming more concentrated and homogeneous, the need for any physician to practice in isolation without quick and easy access to fellow specialists is almost over or certainly will be 20 years from now. Thus, this physician's training will be such that he will know when his patient needs the services of a specialist from a field other than his own—he will follow the patient through the period of his care so that he can continue on when the specialist is no longer needed.

One of the fundamental responsibilities of this physician will be to guide his patients through a complex structure of medical care. In all probability the bulk of his activity will involve the ambulatory patient. The main center of his activities will be his office. But from this office, according to the best interests of his patient, he will extend his services into the hospital or into the home and the community. He will be keenly aware of the importance of utilizing those community resources having something to offer in the management of his patients. Because of his firsthand knowledge of the home and the community, he will be in a position to manipulate or help his patients adjust to environmental factors that may be of importance in their health problems.

The training of this physician will draw from the fields of preventive medicine, psychiatry, pediatrics and internal medicine. I believe the training could not be obtained in less than three years and, if this were the plan, I believe the specialty areas concerned could be induced to pool their resources and develop a well-rounded training program. I also believe that specialty board status should be provided, and I suggest the name of "The American Board in General Practice."

As I read the future, medicine's greatest challenges lie in the field of mental hygiene and preventive medicine. And I believe that if these challenges are to be met, it will only be through the medium of the kind of physician I am advocating. If the knowledge of either of these areas is to be applied effectively, it must be grafted upon a basic knowledge of pediatrics and internal medicine, and its application will depend completely upon the rapport of the patient-physician relationship. I am not advocating the training of a specialist in public health. Nor am I advocating that the specialist in general medicine supplant either the pediatrician or the internist—he will need both upon occasion as consulting specialists.

In essence then, I am proposing a new specialty: one that can be defined in positive terms; one that will depend upon the development, organization and application of a special body of knowledge; one that will require special training, and one that will fill a need that no other specialty will fill.

Now turning briefly to Dr. Davison's paper, I do not see the establishment of medical school departments of general practice as the answer to this problem.

In fact, as I have carried the problem of the need for a general physician upon my mind from year to year, I have become convinced that surgery should be dropped from all general practice residencies, that the residency period should be lengthened and that all of the effort should be centered around the concepts I have outlined above. Until such time as large numbers of these specially trained physicians can supply the needs for teachers and investigators as well as for practitioners, the training program must be the joint responsibility of the pediatricians, internists and psychiatrists. And if our psychiatrists are to meet this responsibility, it will mean that they will have to develop and apply teaching programs that very few up to now have taken on. I believe that the psychiatric knowledge essential to such programs exists, and I would like to think that the challenge inherent in the above concepts will attract psychiatry to the task. We need to have a better understanding as to how the physician-patient

relationship can be developed and used as a more deliberate force in medical and health evaluation and management.

It seems to me that in order to justify general practice as a special area of teaching with separate departmental status it should, like all other special areas, be centered around the development of a special body of knowledge through research. General practice, as we know it, is not in a position to do this. On the other hand, as a special academic area, general medicine of tomorrow could develop the research essential to the concept I am promoting. For example, research centering around health evaluation and management should extend into the field of the doctor-patient relationship and how to make it a really effective diagnostic and therapeutic instrument. A special study of doctor-caused and aggravated illness (iatrogenic illness) would be in order. And further, research could be extended into the measurement of the effectiveness of medical care—effectiveness as to the various patterns of medical care and of experiments therein.

All specialties have arisen in response to special knowledge and special needs. I believe that such is now the case in the field of general care. I believe that Dr. Davison and I probably agree on the need that exists, but with his definition of general practice centering around things as they are and my concept centering around things as I think they ought to be, I do not see much chance of our getting together on the idea that all medical schools should have departments of general practice.

Except for the existing family care or general care clinics, much will have to happen before my concept could develop to the point where it could be expected to have any impact upon the departmental organization of a medical school. I would point out that these clinics are not general practice clinics. For the most part they are administrative devices whereby a staff, mostly made up of internists, pediatricians, psychiatrists and general practitioners who do no surgery, are pooling their capacities and interests in emphasizing to medical students, interns and residents the importance of the total patient and his continuing care. Many of these are concerned with research in patient care and in medical education. In other words, I think these clinics may represent the beginning of the things I am interested in, but I believe we have a long way to go before we begin to bite off a very significant portion of our total problem.

I believe that Dr. Weiskotten's committee represents a logical and intelligent approach to the future of a medical generalist. I hope that neither the committee's recommendations nor its acceptance will compromise the best interests of the best posssible education. We must have an educational program that will compare in excellence and stature with those in any of the existing specialty areas. If we advocate anything less than this, it is my humble opinion that graduates in medicine will seek to enter training in more attractive and challenging fields.

Most sincerely yours,
Ward Darley, M.D.
Executive Director

° ° °

University of Louisville
School of Medicine
Louisville 2, Kentucky

Editor, Northwest Medicine:

I want to thank you for your courtesy in sending me the proof of the article by Dr. Robert A. Davison on "The Medical School Department of General Practice." I must say that your comment in your covering note to the effect that the views of thoughtful educators may or may not coincide, is undoubtedly correct.

Here are my thoughts on the matter: It seems to me that Dr. Davison (whom I have met and talked with) is confusing two things—A Department of General Practice in a medical school and a Department of General Practice in a hospital or hospital clinic. The two things are by no means synonomous. From our point of view at least, a medical school department is an academic unit whose purpose is primarily to teach fundamentals and basic principles of medicine, and the medical school organization is departmentalized primarily for the purpose of convenience in such teaching. In a hospital on the other hand, a department is designed primarily as a service function for patient care although, of course, intimately bound up with teaching at the same time. In other words, in a hospital such a department is designed for the practice of medicine, not primarily for instruction in fundamental principles.

Another way of stating what I have just said might be this: Any course in general practice actually represents the application of methodology or techniques—that is, the application of the basic principles learned in the regular departmental program, to special situations. For example, a student learns the proper methods of treatment of a patient with pneumonia, primarily under the direction of a department of medicine. Those general principles apply no matter where the patient may be treated. On the other hand, in a course in general practice, the emphasis would likely be on how to treat a patient with pneumonia in a home in the country, for example, or in a tenement house in the city. Granted that the handling of patients under these conditions may not be identical with that in a good hospital, nevertheless the differences represent the application of techniques—not any difference in fundamental principles.

That is the reason why I oppose the establishment of departments of general practice in medical schools, and our faculty is in accord with my position. I would have no objection to creating a special division or section under some special name for this purpose but I would object vigorously to setting up a unit which would theoretically be on a par with other regular academic units.

Another point I would like to bring out is that many of the items mentioned by Dr. Davison can well be covered in other departments and, indeed, in our own school are already so covered. For instance, under the heading "Functions of the Department of General Practice" he lists "to give instruction in the availability of ancillary community medical and welfare aids." In our own school that has been done for several years as a part of the

student's regular course in preventive medicine. One does not need a separate department in order to teach that kind of material. Furthermore, in many schools there are programs listed under various labels, one of which is "Family Care Program" whereby students do have contact with families in their own homes and environments. That is true in our own school although at the present time it is on an elective basis; in some schools it is compulsory, I understand. Here again this can he carried on as a function of a regular department as, in our case, the department of preventive medicine.

Finally, the general practice clinic in a teaching hospital, as described by Dr. Davison, is already in effect in some institutions, although not necessarily called by that name. I have visited medical schools and their teaching hospitals where such a clinic almost exactly as described hy Dr. Davison is in operation, serving precisely the functions he describes, but not officially labelled as either a general practice clinic or a department of general practice.

I might sum up by stating that my objections to a separate department of general practice in a medical school are based on a difference in philosophy as to what departments in general mean in the academic sense. A department of general practice in a hospital is not objectionable and as you know, the Joint Commission on Accreditation of Hospitals recommends that such departments be established. And to summarize the second major point which I raised above, I repeat that much of the material which is included under the heading of a department of general practice can easily be taught, and in many instances is taught in many schools, as a part of the program of other departments.

I will be interested in other deans' reactions to this.

Sincerely,
J. Murray Kinsman, M.D.
Dean

P.S. I should have mentioned somewhere along the line that in our school for may years we have had a series of lectures given to our seniors by general practitioners, on the subject of general practice. I think these have very definite value because they do cover certain aspects which are not included in the regular curriculum *but* here again the important point is that the emphasis is on methodology and techniques, not on fundamental principles.

J.M.K.

* * *

Tufts University
School of Medicine
Boston 11, Massachusetts

EDITOR, NORTHWEST MEDICINE:

I read Dr. Davison's paper with interest. It is a little hard to comment without getting involved in the intricacies of the Medical School curriculum and departmental organization. The use of Department and Division varies so much in different schools that more precise definitions than Dr. Davison supplies would be helpful. However, I have made the following comments which you may use if you see fit.

If I understand Dr. Davison correctly, it is hard to disagree with his thesis that during his undergraduate years the medical student should have some opportunity to study and treat patients as human beings in a particular environment, including their ecology and emotional as well as physical ills. Various plans to accomplish this are in effect in a number of medical schools. At Tufts University School of Medicine, for instance, fourth year students are assigned full time for two months to Preventive Medicine. During this period they make home visits under supervision, see the same patients when indicated in their "Office" in the outpatient clinic, and follow these patients to the Rehabilitation Institute or to such consultations as are indicated. The experience is made as much like the private practice of medicine as possible and practical. This is implemented by the cooperation of the Departments of Medicine, Surgery, Pediatrics and Psychiatry, as well as the Specialties, under the coordination of the Department of Preventive Medicine.

I cannot agree with Dr. Davison that his objective can only be accomplished by a Department of General Practice. He justifies such a department in the belief that it would add to the curriculum "a body of knowledge and instruction peculiar unto itself." What this body of knowledge is, I do not know. We hear much of "training students for general practice." This implies that at the *undergraduate level* the training of a man who plans to enter general practice should differ from that of a man who plans to specialize, teach, or follow a career in research, public health, or industrial medicine. Certainly in the lay mind at least, "training for general practice" infers inferior training. Since the family doctor or general practitioner usually sees the patient first, when diagnosis is most difficult, and when action must be based largely on the physician's judgment rather than on the results of a battery of laboratory tests, it seems to me that his background in physiology, pathology and pharmacology, as well as in the clinical disciplines, must be just as broad and just as thorough as that of his colleague who will enter a narrower field.

Sincerely yours,
J. M. Hayman, Jr., M.D.
Dean

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University of Kansas
Medical Center
Kansas City 12, Kansas

EDITOR, NORTHWEST MEDICINE:

Thank you for the opportunity of reviewing the manuscript by Dr. Robert Davison, "The Medical School Department of General Practice."

Perhaps more than most "Medical School Specialists," I am in agreement with the conclusion that the graduate of our medical school should be a generalist (that is—family doctor, general practitioner, general internist).

Under today's schooling we are only achieving this aim by an internal medicine residency. Various attempts to construct general practice residencies are certainly useful, but the "GP Specialty Board" movement needs to ask itself if the solution is in extending the training program, or if the true problem is not on the present

poor use of the seven years of pre-degree time now available. Dr. Davison is suggesting a solution by adding another full department to the school. Such an approach has possibilities. However, many of the purposes and values cited by Dr. Davison are already obtained in certain medical schools by strong general medicine clinics (attended by both internists and American Academy of General Practice members) and required general practice preceptorships.

By supporting these efforts with a continuing education program (circuit courses, symposia, seminars), a regional medical school can produce a brand of family physician of amazingly high caliber. We have watched this happen in Kansas.

I believe that a new department will gradually emerge in our medical schools. It will grow from our present internal medicine departments. Into this department should be brought general practitioners with titles, duties and responsibilities. The objective of this group should be to guide an education program which will produce a family physician. The *graduating product should be the family doctor*. If a residency is required to accomplish this, then the seven years are not presently satisfactorily used. The solution is not in additional departments or residencies, but in a drastic reorganization of the presently available seven years.

Cordially yours,
Edmunds Grey Dimond, M.D.
Professor and Chairman
Department of Medicine

° ° °

Howard University
College of Medicine
Washington 1, D.C.

Editor, Northwest Medicine:

Thank you for the opportunity to read the article, "The Medical School Department of General Practice," by Dr. Robert A. Davison and to express my views about its general theme.

There is no disagreement between Dr. Davison's objectives and mine in medical education, though we disagree in the methods of arriving at their implementation. I believe that Dr. Davison, himself, presents a bit of inconsistency in that under "Differenees From Other Departments," Item 4, he states "The general practice elinic and home care course becomes a proving ground both to the student and the faculty as to what further training the student might find desirable as he seeks his future place in Ameriean Medicine" and under "Educational Need for a Department of General Practice," he states "Recognition or denial of the educational need for a department of general practice within a medical school curriculum rests with the acceptance or rejection of the foregoing objectives in student teaching."

In my opinion, it is desirable to have a general practice clinic and home care course, but in order to have such a course it is not necessary to create a new department. I believe that the prestige of a department of medicine in a medical school would afford the kind of leadership and cooperation which the offering of such a course requires. Because of the emphasis of late on specialization, I doubt that a group of men specializing in general practice would have the prestige and command the support in the average medical school which the offering of such a course requires.

It is my conviction that in order to present the objectives and the philosophy of the general practitioner, it is desirable to have in every basic science department at least one general practitioner serving on a part-time basis. We have this arrangement in Anatomy, Pathology and Pharmacology. I hope to be able to extend this interest to the other departments concerned.

Sincerely yours,
Robert S. Jason, M.D.
Dean

° ° °

The University of Chicago
The Division of the Biological Sciences
Including The School of Medicine
Chicago 37, Illinois

Editor, Northwest Medicine:

I am pleased to comment on the thoughtful article by Dr. Davison.

The plan to establish a department of general medicine is not new, nor has the idea been given superficial consideration. Particularly since the rise of the interest in specialty boards, there also has been noted a gradually increasing interest in various ways and means through which a more adequate experience can be provided for those interested in general practice.

No one has defined exactly of what general practice consists, nor how a curriculum should be devised. Unfortunately in the minds of many it is associated with inferior ability, which it certainly should not be. The faculties of various medical schools both in the United States and in Canada have considered on many occasions the possibility of establishing departments of general practice. Such departments have been established abroad about the time plans for "national" medicine were developed. Edinburgh in 1948 established a department which is apparently still going. The intent was to demonstrate to students the "indivisibility of medicine and to illustrate the social aspects of health and sickness."

The general attitude of the faculties of the medical schools in this country is to provide a strong basic background of medical experience which would permit students to go in practically any direction after the completion of formalized supervised training in their undergraduate years.

The idea of separate departments for general practice has been generally rejected for several reasons but primarily because of the possibility that they may become units of vocational training rather than a true educational experience. Graduates would likely be a discredit to the cause of the general practitioner. The accumulation of medical knowledge available today as a result of emphasized basic and clinical research in the medical fields makes it almost impossible for the medical school faculty to transmit to the student the full array of information he might need in any area.

There is a consensus that teaching experience can and should be condensed rather than extended—or at least started earlier—so that training for special areas, including general practice, may be obtained after graduation from medical school. No one should deny the importance

of the role of the general practitioner. However, to believe that the pressures toward excessive specialization come from the undergraduate years is wrong. They come mostly from the student's knowledge of the way medicine is practiced after he receives his degree. I do not believe departments of general practice will change this attitude, but I am pleased at the apparent current trend toward a greater interest in general practice.

L. T. Coggeshall, M.D.
Dean

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The George Washington University
School of Medicine
Washington 5, D.C.

EDITOR, NORTHWEST MEDICINE:

Your kind letter inviting me to comment on Dr. Robert A. Davison's interesting article entitled "The Medical School Department of General Practice" was appreciated.

I certainly agree with Dr. Davison that the primary purpose of a medical school is "that of supplying well trained physicians to meet the total medical needs of the country." However, I should prefer to believe that these total needs are met best through the coordinated contributions of the entire faculty of the school of medicine. Each member should add to the student's knowledge of comprehensive care. Certainly coming in contact with and learning from qualified teachers of general practice medicine will help many students organize their thoughts about practice. However, all of the procedures outlined in Dr. Davison's manuscript can be carried out in a well organized Department of Medicine.

Although I can not agree with Dr. Davison's recommendation for a Department of General Practice in the School of Medicine, he has brought forward some timely thoughts to all of us who have responsibilities in medical education.

Most sincerely yours,
John Parks, M.D.
Dean

° ° °

The Creighton University
School of Medicine
Omaha 2, Nebraska

EDITOR, NORTHWEST MEDICINE:

In response to your letter of January 28, 1958, I submit the following:

Dr. Davison's article certainly explores a field greatly in need of much development. I believe that in the process of recognizing the various foibles of professional jurisdictional jockeying for administrative position, we sometimes miss the point. Before synthesis of knowledge can be effected, some compartmentalization of the approach to the acquisition of the knowledge to be coordinated must occur. The functional approach of the students' handling of patients and the supervision provided should approach the whole patient and not a distributed or segmented psyche and anatomy. I have proposed, pending adequate funds, that we approach the teaching of total patient care through the medium of our out-patient department as the central core. The student under the supervision of adequate internists and general physicians will maintain an "office." The families and household neighbors become his patients as his case load develops. He makes the necessary house calls; he arranges for hospitalization and follows the patient throughout his hospitalization and carries out post-hospital care. The consultant comes to the general medical clinic. A regular consultation form is executed and incorporated in the record. Patients having conditions which should be cared for by specialists are referred for definitive care and returned. The student is obliged to keep in contact with the specialist consultant and the patient when the patient is to be returned after definitive examination or therapy. It is hoped that a practical training program in the area of general medicine can thus be approached. Too much talk on department or departmental status is too divisive.

Trusting that the above comment will be helpful, I am

Sincerely yours,
F. G. Gillick, M.D.
Dean

° ° °

Cornell University
Medical College
New York 21, New York

EDITOR, NORTHWEST MEDICINE:

This is in answer to your request for comment on the article "The Medical School Department of General Practice." I believe my general feelings were expressed in the report "Medical Schools in the United States at Mid-Century," published by McGraw-Hill. On page 323 there is a brief description of general practice, and in the chapter on medical school departments, page 180, there are recommendations with respect to the formation of new departments.

I do feel that the teaching in medical schools becomes chaotic when a large number of departments are involved. Certainly, the trend today is to more closely integrate and draw together the teaching of existing departments. Departments of internal medicine as now organized could very well, can and often do, offer the student a sound background for the practice of a limited type of general practice.

John E. Deitrick, M.D.
Dean

° ° °

The Johns Hopkins University
School of Medicine
Baltimore, Maryland

EDITOR, NORTHWEST MEDICINE:

The need for more and better family physicians can scarcely be disputed. Good basic medicine is the same, however, whether it is practiced by general practitioners or by specialists. At Johns Hopkins, and I assume in most other medical schools, an effort is made to teach the basic principles of diagnosis, treatment and prevention of disease rather than to try to acquaint the student with every situation which he is likely to encounter in practice.

I would see little to be gained by setting up a department of general practice which would inevitably duplicate most of the things departments of medicine and

pediatrics are now doing or certainly should be doing. A better approach, in my opinion, would be to develop further the group clinic idea in out-patient services which more nearly reflects the office type of practice that comprises the bulk of family practice today.

I might say that at Johns Hopkins we have some very fine general practitioners teaching in our out-patient clinics, although I doubt if even these general practitioners would in fact attempt to conduct "preventive, diagnostic and therapeutic measures in all fields of medicine—."

Sincerely yours,
Thomas B. Turner, M.D.
Dean of the Medical Faculty

° ° °

University of Southern California
School of Medicine
Los Angeles 33, California

EDITOR, NORTHWEST MEDICINE:

I have serious reservations regarding Dr. Davison's proposal. The principal one centers about his statement that "the scope of the teaching is breadth rather than depth." I have a haunting suspicion that in our medical schools we attempt at present to cover far too much of the field and often in a quite superficial manner. I would question the wisdom of training medical students in techniques of practice and instead would favor emphasis on basic principles of underlying mechanisms, diagnosis and therapy as well as the cultivation of an inquiring attitude. I believe that these objectives can be accomplished without sacrificing the valuable features provided for in Dr. Davison's program, such as experience with disease in early stages and the viewing of the patient as a whole in his social environment.

I should think the answer lies in operating our programs in a better fashion rather than instituting a new department which offers breadth rather than depth.

Sincerely,
Thomas H. Brem, M.D.
Dean (Acting)

° ° °

The University of Wisconsin
Medical School
Madison 6, Wisconsin

EDITOR, NORTHWEST MEDICINE:

I have enjoyed the opportunity to read the article by Dr. Davison and I am interested in his comments on the need for Departments of General Practice. I am sure that all medical educators recognize the need for the education of students in a manner that will permit them to deal with the diverse disease and health problems encountered by the general practitioner. The main question is—can this be accomplished within existing departments or is it necessary to establish a separate department for such a program? I believe that all of this can be accomplished within existing departments.

A number of Departments of Medicine, Pediatrics, or Preventive Medicine operate Home Care Programs such as Dr. Davison describes.

At Wisconsin, we have conducted a Preceptorship Program since 1925, and we feel that this has been a most valuable approach toward having students understand the complex problems inherent in the practice of medicine.

I am not aware that the program at Tennessee has led to the production of a larger number of general practitioners than is true in other tax-supported medical schools.

Yours sincerely,
John Z. Bowers, M.D.
Dean

° ° °

American Medical Association
Council on Medical Education and Hospitals
535 North Dearborn Street
Chicago 10, Illinois

EDITOR, NORTHWEST MEDICINE:

Thank you for sending me the proof of the paper by Dr. Robert A. Davison on "The Medical School Department of General Practice."

At the present moment I do not believe I have any comments to make in regard to this article. As you know, the Council on Medical Education and Hospitals of the American Medical Association in cooperation with the Association of American Medical Colleges and the American Acadmey of General Practice has a very active committee studying the best background preparation for general practice. It is hoped that during the course of this year, the Committee will be able to make a report and recommendation geared in as effectively as possible with the knowledge and needs of the times.

In the meantime, I think many individuals who have given a great deal of time and thought to this matter would be inclined to state that a medical school department of general practice is only one out of several possible ways of emphasizing the background experiences essential to the field of family practice.

With best regards,

Very sincerely yours,
Edward L. Turner, M.D.
Secretary

° ° °

University of Pennsylvania
School of Medicine
Philadelphia 4, Pennsylvania

EDITOR, NORTHWEST MEDICINE:

I have read the galley of Dr. Davison's article on "The Medical School Department of General Practice" with a great deal of interest, and I appreciate your invitation to discuss the paper for your journal. I think that Dr. Davison's paper is very good, and he raises a number of points which are subject to careful consideration and discussion, for there is something to be said on the other side.

Unfortunately, I must leave within a very few days for a series of meetings out of town which will occupy my attention fully, and I simply do not have time to write the necessary comments before I leave.

With regrets, I am,

Sincerely yours,
John McK. Mitchell, M.D.
Dean

Acute Fatty Metamorphosis of the Liver Associ

Clinical Pathologic Conference
Providence Hospital, Seattle, Washington

Prepared under the direction of David G. Mason, M.D.

Protocol

M. Richardson: This patient is an 18 year old white woman who entered Providence Hospital July 29, 1956 at 7:15 P.M. for induction of labor, with a complaint of nausea and vomiting. She was gravida 0, para I with an expected date of confinement of July 30, 1956.

Present Illness: Patient was seen in her physician's office two or three days prior to admission. Blood pressure and urinalysis were normal. She complained then of some nausea and vomiting for which she was given 25 mg. of chlorpromazine.

Past History: Menarche occurred at 11 years. Menses were moderate and lasted three to four days at 28 day intervals. Health prior to pregnancy was good. During the first trimester, moderate nausea and vomiting occurred.

Physical Examination: T 98.6 F.; P 110; R 22; BP 114/80. Scleral icterus was questionable. The throat was slightly injected. Lungs were clear to percussion and auscultation. The breasts were firm. The heart beat was rapid and bounding. A soft, grade II, systolic murmur was audible over the aortic area. Tumor of pregnancy was present with the fetal head well down in the pelvis. Fetal heart tones in the LLQ were 136 per minute.

Laboratory: Urine was yellow, cloudy; S.G. 1.011; albumin 40 mg.; *p*H 4.5; reduction and acetone negative; RBC 3-5; WBC 5-7; epithelial cells moderate; considerable numbers of bacteria and much mucus. Blood count was not done.

Hospital Course: On the evening of admission the patient was given 200 mg. secobarbital and one ampule of Synkayvite, intramuscularly. During the night she went into spontaneous labor. At 5:45 A.M. on July 30, 1956, a vaginal examination was done and the membranes were ruptured with moderate fluid loss. The fetal heart tones were 136 to 140. At 6:30 A.M., 200 mg. secobarbital, 100 mg. meperidine, and 1 minum of oxytocin were given. At 8:30 A.M. a prolapsed, non-pulsating cord was evident on second sterile examination. At this time it was determined that the heart tones of the fetus at 136 per minute were synchronous with the mother's. A diagnosis of fetal death was made. At 8:30 A.M., in the morning light of the labor room, the sclerae were unequivocally icteric and the skin was also slightly icteric. Labor progressed and at 9:50 A.M. a 7 lb. 2 oz. boy was stillborn under nitrous oxide and oxygen anesthesia. A left medio-lateral episiotomy was done and outlet forceps used. Following delivery of the placenta, 1 ml. of Methergine was given. Repair of the episiotomy and of a left lateral cervical laceration with a deep sulcus tear of the left vaginal wall was done. Blood loss was estimated at 1 L. Intravenous fluids and dextran were started. The blood pressure at this time was unobtainable. Pulse was weak, rate 100 per minute. The fundus became boggy in spite of intravenous pituitrin and massage. By now, it was becoming apparent that the degree of sedation seemed in excess of that expected with the given medications. Following delivery, two massive episodes of vaginal bleeding necessitated the giving of 2 units of blood simultaneously under pressure. A blood sample revealed sluggish clotting without retraction. Five Gm. of fibrinogen

ated with Pregnancy

was given along with vitamin K. On one occasion blood pressure of 80/40 was obtained. Through the day she was given 13 units of whole blood and other intravenous fluids. Bleeding, shock and unconsciousness persisted. At 4:00 P.M. laparotomy revealed a boggy uterus and an hematoma in the left broad ligament. Through a supracervical hysterectomy and left salpingo-oophorectomy the pulse stayed at 100 to 112 per minute. Bleeding per vagina persisted. Further manipulation was not possible and a vaginal pack was inserted. At 6:30 P.M. the respirations were 30, pulse 120, and blood pressure unobtainable. At 8:35 P.M. the respirations and pulse ceased. It was later learned that during the past two weeks the patient had not felt well, noting malaise, chills, slight temperature elevations and dark brown urine on several occasions.

Differential Diagnosis

Jerome Smersh: First of all, I would like to bring out a few points which will be worthy of comment: (1) complaint of nausea and vomiting, (2) color of the urine, (3) excessive sedation from moderate dosage, (4) icterus, (5) the wounds—episiotomy, cervical and vaginal lacerations, (6) fibrinogen administration, and (7) the final sentence of the protocol.

This final sentence is most basic, and shows me not only the direction in which to head, but makes me suspect that this is one of the more important reasons for this case being presented. I think what we are trying to show here is the importance of always getting a good history from our patients, including the obstetric patients. Pregnancy is such a normal situation in the vast majority of cases that we tend to see obstetric patients quickly, and often fail to ask them specific questions on every visit. I think this case is a good lesson in this respect.

In view of this last sentence, in particular the mention of dark brown urine, along with nausea and vomiting, icterus, and the matter of excessive sedation, the underlying basic disease would appear to be in the liver. The dark urine signifies the presence of bilirubin. It further signifies regurgitation jaundice primarily, with no doubt retention jaundice as well. I am sure of the former. I feel that this is caused in this particular case by some type of diffuse pressure in the biliary system due to swelling of hepatic cells. As to etiology of this damage to liver parenchyma, the most likely cause would be viral hepatitis.

There are other things to consider as far as differential diagnosis is concerned. Although the vast majority of cases presented in pathologic conferences deal with unusual diagnoses, I am going to go on the premise that the main point in presenting this case is to show the importance of history details. I do not think this case falls into the toxemia of pregnancy classification in any way. There is some albumin in the urine, which may or may not be significant. It is more likely the latter, even if the specimen is a catheterized one. I do not think we have to go to the extreme of acute atrophy of the liver to explain the cause of death. Less severe underlying liver damage with resultant interference with blood

coagulation could explain the sequence of events. There could well have been acute atrophy in this case as a terminal situation. It appears that acute atrophy of the liver is simply a more severe form of acute hepatitis. It frequently will occur where a damaged liver is subjected to another type of insult even though it may be mild.

Hepatitis may be of two types: Infectious hepatitis or serum jaundice. They are basically the same as far as pathology and clinical symptomatology are concerned, fundamental differences lying in the incubation period and the actual source. Fever is uncommon in the preicteric stage in serum jaundice. There is diffuse involvement of the liver in both cases. There is usually jaundice, although jaundice may not appear. In some cases, jaundice is the only symptom or sign. The onset may be quite abrupt or it may be insidious. Anorexia, nausea, headache, abdominal distress, lassitude, frequently fever, and often chills or chilly sensations are the symptoms of hepatitis. Nausea and vomiting are frequent. Majority of the cases have abdominal symptoms preceding jaundice by one to three weeks. The urine is commonly dark, one or more days prior to the appearance of jaundice.

I would like to comment on the yellow urine at the time of hospital admission. This is not in contradiction to what I have already said. With the onset of hepatitis, the renal threshold for the one minute, so-called prompt bilirubin, is low. Bilirubin spills over into the urine very easily at the onset. Then jaundice increases the threshold, and the bilirubin in the serum can reach higher levels and yet not appear in the urine. Renal threshold for bilirubin probably explains why this urine was not dark when seen in the laboratory.

A brief comment only is necessary regarding the excessive sedation. This again points to the liver. Barbiturates are excreted by the liver, and if there is liver damage we would expect increased sedation from the dose administered here.

It is to be noted that there was secondary blood loss from the episiotomy and lacerations. However, we still have the uterus as a source of blood loss, so that these are not necessarily significant. What is significant is failure of blood coagulation.

This patient received fibrinogen. This is a case in which I would not expect fibrinogen to help very much, as I feel it is the prothrombin that has been affected rather than the fibrinogen. Liver damage must be very severe in order to have interference with fibrinogen. Also, fibrinogen must be almost totally absent before coagulation fails. Prothrombin is affected much sooner than fibrinogen, and I believe this to be the basic defect here. Vitamin K will act to help the liver produce prothrombin, but did not help here because the liver was damaged, and was not able to promote prothrombin formation.

As to the blood she received, one can only say that we do not know how fresh the blood was. We know that several factors in the blood—platelets, prothrombin, and fibrinogen—decrease on storage. This is particularly true of prothrombin which diminishes very rapidly on storage. I feel, therefore, that she probably did not receive very much actual prothrombin from the blood transfusions.

Finally, I would say that we are dealing with a case of liver damage. It is most likely a case of viral hepatitis with hemorrhage the immediate cause of death due to the damaged liver and consequent lack of prothrombin, with possibly excess barbiturate effect being a contributory factor.

Discussion

Dr. Mason: Are there any questions from anyone in the room to the discussant or to Dr. Codling whose case this happened to be?

Henry Myers: In this case I agree with Dr. Smersh. Any medication is probably too much. In this case, certainly, 200 mg. of secobarbital followed sometime later by another 200 mg. secobarbital and 100 mg. meperidine is too much medication. However, I must admit that in ordinary circumstances in a healthy patient I might give more.

There is one other thing here that has not been brought out—that is, this was a pretty traumatic delivery. With no remarks directed toward the obstetrician, there are some deliveries which are traumatic because you can not do anything about it. But with a lateral cervical tear and deep sulcus tear, I think that very probably we had one or more branches of the uterine artery involved in this thing also. This would not help the situation any.

A Physician: I do not think that the barbiturates were given in excess. Certainly, I think that we should consider the operative wound. This woman was evidently bleeding very badly. I would like to ask a question. How long did the baby live? Was it a macerated stillborn or was it a recent death?

Henry V. Bories: I would like to ask Dr. Smersh one thing. Inasmuch as you gave a diagnosis of infectious hepatitis, can you classify what type of liver lesion this is? Is it necrotic?

Dr. Smersh: No, but it could be. You could have a diffuse atrophy—acute atrophy terminally —but I think that you could just say diffuse parenchymal damage.

Dr. Mason: Can we get an answer to the question about the fetus? How about the fetus, Dr. Codling? Was it macerated?

John Codling: No, this was a very recent death. I do not know if this fact was brought out in Dr. Richardson's presentation, but perhaps a little clarification is necessary. When the cervix was 5 cm. dilated, a sterile vaginal examination was done—approximately at 6:30 A.M. The membranes were bulging and were ruptured with forceps. About one hour later a prolapsed cord was noted. No fetal heart tones were noted. Apparently the fetal heart was recorded on the chart at 136 per minute, an hour or so before. The mother's pulse was also 136. In retrospect, these could have been one and the same—meaning that the infant could have been dead prior to prolapse of the cord. It should be noted here that in 13 of the 14 cases of this disease that have been recorded in the world literature, every child has suffered intrauterine death.

David Metheny: This woman had her blood volume practically replaced. The blood that replaced hers had anticoagulants in it. There is some debate in the literature whether the anticoagulants in this amount of blood would affect the coagulation of the recipient or not. The army regulations at one time stated that people receiving massive transfusions should be given calcium. Later on they seemed to think that calcium was not necessary. However, in this particular patient, who must have had liver damage, the anticoagulants in the donor blood might have been a factor in failure of her blood to clot.

Dr. Mason: I think that they used to use about 50 cc. of 1 per cent sodium citrate. Isn't that right, Dr. Coleman?

Daniel Coleman: I think the answer to that is not so much that a calcium deficiency has developed as what was partially brought up earlier—that this patient was losing her own prothrombin and accessory factors by bleeding. If she is given whole bank blood which does not contain these factors, they actually compound or initiate an hemorrhagic tendency. A patient can start bleeding with a peptic ulcer and end up with an hemorrhagic diathesis due to the lack of these factors. Clinically, I do not think that calcium deficiency has ever been indicted as a reason for a bleeding defect.

Alexander R. Stevens, Jr.: I do not think it is used very often. However, in the last week, two patients at Harborview might have been given calcium. I do not think that point has been well settled.

A Physician: I believe that our turnover in blood here is so rapid that most of the blood is just a few days old and still relatively fresh when used. It would have adequate labile factors. It certainly contains adequate prothrombin and adequate fibrinogen. I find it difficult to subscribe to Dr. Coleman's hypothesis unless the blood was three weeks old, and it practically never is here in Seattle.

Lois Day: In reference to the bleeding and the amount of stored bank blood this patient received, I had an experience with a patient who had an abruptio placenta with massive hemorrhage before the advent of fibrinogen. She received approximately 13 units of stored blood during hysterectomy and was in good condition for seven hours postoperatively when she began to bleed from the abdominal wound. Administration of vitamin K intravenously stopped the bleeding promptly and the patient's postoperative course was uncomplicated further.

Dr. Mason: With all the activity that attends a case of this type, individual minds are on dif-

ferent things, and it is not difficult to overlook the obtaining of data that might be of value. For instance, prothrombin determinations and other blood studies might have been most revealing.

Lawrence H. Tarte: In reading up on this case, I noted an article reporting a case quite similar to this in many respects. Their treatment differed from that used here only in that cortisone was tried and the patient did recover. She seemed, in fact, on admission, in worse condition than this patient. She was in a coma with jaundice and had severe hemorrhage following delivery. They used calcium along with their blood replacement. But, they attributed the recovery largely to the use of cortisone. This may be something to consider.

Dr. Myers: Did the protocol say that the patient received only 25 mg. of chlorpromazine?

Dr. Mason: I believe that is correct. That was two or three days before she was hospitalized. Do you care to make any comments about the dosage?

Dr. Myers: I was just wondering if she had had chlorpromazine earlier in her pregnancy.

Dr. Mason: She had not had it before and she did not have more than the 25 mg. dose, which I would be inclined to discount as causing any combined effect or enhancing action when hooked up with the barbiturates. One would think that a small dose of chlorpromazine, three days before barbiturates, would have been metabolized and excreted long before secobarbital was given.

A Physician: When a patient has a sulcus laceration and a cervical laceration and possibly a uterine laceration, I do not know if the term *outlet forceps* is applicable to the delivery. Was it truly an outlet delivery with such an extensive laceration at the time of delivery?

Dr. Codling: It was truly an outlet forceps, and a very easy delivery. Part of the condition present seemed to be the poor quality of the tissues. It was like sewing wet cardboard. The sutures just tore out. The patient's tissues had no normal resistance or turgor. It reminded me very much of a pregnancy patient who had extremely severe gallbladder disease. She was on a most rigorous diet during her pregnancy, and at delivery presented the same type of friable tissues.

Gross Pathology

Frank Placek: The only external change of note was slight icterus of the skin and sclerae. There was no significant hemorrhage around or in the recent wound. The abdomen contained an estimated 500 cc. of bloody, but watery, fluid. The sutured stump of the cervix appeared intact. The pelvic peritoneum was bluish over the lateral walls and up over the bladder due to an estimated 200 cc. of collected blood clot. The liver, weighing 1050 Gm., was small for an individual weighing approximately 120 pounds. Its edge was blunt and above the right costal border. The capsular surface appeared smooth but strikingly yellow and without evidence of hemorrhage. The surfaces made by section of the liver appeared a light yellow-tan.

Aside from a mild hydronephrosis and hydroureter on the right, thought related to the pregnancy, the kidneys showed no noteworthy change. The lungs, heart, adrenal glands, pancreas, spleen, and gastro-intestinal tract were normal.

A Physician: Do you have any idea of the amount of blood in the left broad ligament?

Dr. Mason: It was not over 200 cc. at the most.

Microscopic Pathology

Charles C. Reberger: Dr. Smersh was correct in drawing attention to the more obvious cases. Before we start this discussion, I think that it should be pointed out that there have been only 14 cases reported so far in the literature of this particular disease complicating pregnancy. The most recent article was a review of the literature with a report of 3 cases by Ober and LeCompte[1] in the *American Journal of Medicine* in which they cited Sheehan's earlier work in 1940. He collected 6 cases out of 400 autopsies at his own obstetric hospital. They have termed the disease which we find in this patient as *acute fatty metamorphosis of the liver associated with pregnancy.* Sheehan[2] had used the term *obstetric acute yel-*

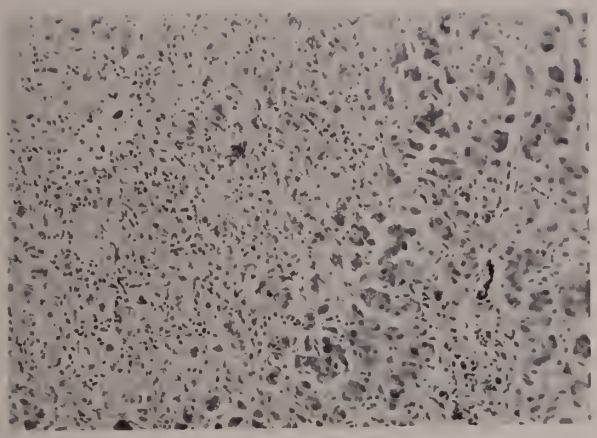


Fig. 1. Preserved liver cells in the portal zones (lower right). A central vein is seen in the upper left corner.

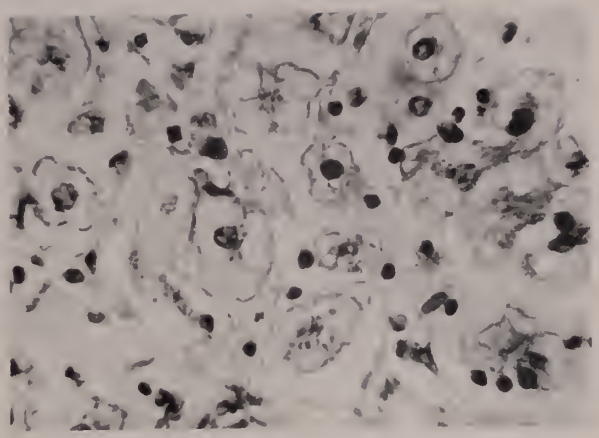


Fig. 2. Showing preservation of liver cell nuclei and multiple fat vacuoles in the cytoplasm.

low atrophy of the liver but recognized that true necrosis of the liver cells did not occur. In fact, the dramatic difference in these cases and those of the infections or toxemias is the presence in the latter of necrosis of the liver cells. In this particular condition, there is complete lack of necrosis of the liver cells.

In acute hepatic necrosis there are hemorrhagic zones, large areas of complete degeneration of liver cells and not much inflammatory exudate. Higher power of the same thing shows nuclei which are faded, other areas where the nuclei are completely gone and liver cells which show no particular features except for perhaps a slight increase of granularity of their cytoplasm.

Figure 1 shows a few peri-portal cells that are not altered. Approximately the remaining four-fifths of the liver lobule shows the feature of distention of the liver cells with vacuoles which one sees in the ordinary fatty liver. These vacuoles tend to be clear, small and multiple (Fig. 2). Sheehan has described these cases quite vividly as occurring in the third trimester of pregnancy, usually the thirty-sixth to fortieth week of pregnancy. The patient will complain of nausea, vomiting, sometimes epigastric pain, sometimes headache. Their course is one of rapid deterioration. Chemistry done on patients of this type indicates severe liver damage with tragic increase of circulating amino acids, decrease in the urea nitrogen (both in the blood and in the urine) and in some cases there has been a marked fall in the prothrombin concentration.[3] One of the cases reported by Ober and LeCompte had a prothrombin concentration of 11 per cent of normal. Apparently, Ober and LeCompte in their series of patients had the same difficulty we are having here—that is, the therapeutic problem of how to keep the patient alive and not really sufficient time to do all the laboratory work one would like to do.

Fat stain showed that the material within the vacuoles is actually fat. It has been determined that most of the fat is in the form of fatty acid —not neutral fat. Droplets in cytoplasm of epithelial cells of the proximal convoluted tubules were fat. According to Ober and LeCompte, this change may or may not be present in given cases.

In summary, this is an unusual condition. It may be unusual in that it has been observed in only the past few years. The actual process by which it occurs is rather hazy in most investigators' minds. It has been found that it simulates the condition seen in certain forms of experimental carbon tetra-chloride intoxication and in the livers of animals fed on protein-deficient diets. It also has been seen in the female rat fed on a diet high in ethionine which apparently is a metabolic competitor for methionine. It is not seen in male rats fed ethionine. The rats have had some improvement after administration of protein hydrolysates, methionine, and choline but this has not been duplicated in the human being. As we know, methionine and choline as therapeutic agents in the human being are still subject to considerable question.

Only 1 case lived out of the 14 which Ober and LeCompte collected. This patient was a 30 year old Chinese who developed nausea, anorexia and jaundice four weeks prior to term. She was also stuporous. She delivered a live baby by cesarean

section. At this time a liver biopsy was done. This demonstrated the same type of change which we see on this series of slides shown. This patient recovered after a very stormy clinical course.

Dr. Day: Is there any evidence of damage to the fetal liver or fetal kidney?

Dr. Mason: It has not been described.

A Physician: In this case?

Dr. Mason: We do not know. There was no autopsy done on the fetus.

A Physician: Did all the cases occur in the last trimester?

Dr. Mason: Yes, that is right. This person was right at term. Most of the reported cases had nausea, vomiting and epigastric pain, followed by deepening jaundice. The symptoms began two or three weeks before the baby was expected. Clinically, the cases are indistinguishable from acute infectious hepatitis.

A Physician: Is this a form of toxemia of pregnancy?

Dr. Mason: The etiology is not known. In reported cases there has been no evidence of dietary deficiency or of exposure to exo-toxins. It is felt that the condition in some unknown manner is related to an endogenous alteration in metabolism.

Dr. Myers: Just as a matter of interest, did laceration of the cervix extend up into the lower segment?

A Physician: No, it did not.

Conclusion

Dr. Codling: In summary, it seems we are dealing here with a new entity or one seldom recognized. Certainly, it was entirely foreign to me—this so-called "fatty metamorphosis of the liver associated with pregnancy."

I was drawn into this case by the unusual hemorrhage. I was asked to give a helping hand in the cutdown for the transfusions while Dr. Nisco was trying heroically to repair some rather minor lacerations in the face of tremendous vaginal bleeding. The cervical tear was minimal, requiring two or three stitches.

There were multiple small tears, resulting, as I said, from poor tissue and not from a traumatic delivery.

There were three objective findings besides shock: (1) jaundice, (2) coma, (3) exsanguinating hemorrhage. Because of the suspected liver impairment, we gave 3 units of fibrinogen, hoping to offset the failure of blood clotting that was manifest. The bleeding never was controllable. Many transfusions were given; hysterectomy finally resorted to, and the patient died a liver death.

Cause of this disease can only be postulated on lowered liver reserve. Somewhere in the liver cell there are several factors, such as methionine, choline and vitamins, working in concert to keep the liver going. Now, perhaps, at term pregnancy, the tremendous amounts of estrogen that have to be detoxified puts too great a load on the liver and acts as a precipitating factor. Perhaps extoxins or endotoxins play a role to produce this fatty change in the liver cell.

Ober and LeCompte suggest certain therapeutic approaches if an antemortem diagnosis can be made and therapy is to be evolved:

1) Needle biopsy of liver to see what you are dealing with.
2) Fat free, high protein intake.
3) Parenteral fluids and vitamins.
4) Emptying the uterus.

In closing, may I remark here that in the last two years there have come to our attention two alarming obstetric conditions. One is afibrinogenemia, and we are making nice progress in its recognition and treatment. Now comes the fatty metamorphosis of the liver to threaten our mothers. At least we can now recognize, diagnose and treat it, perhaps—and perhaps can also save a mother. •

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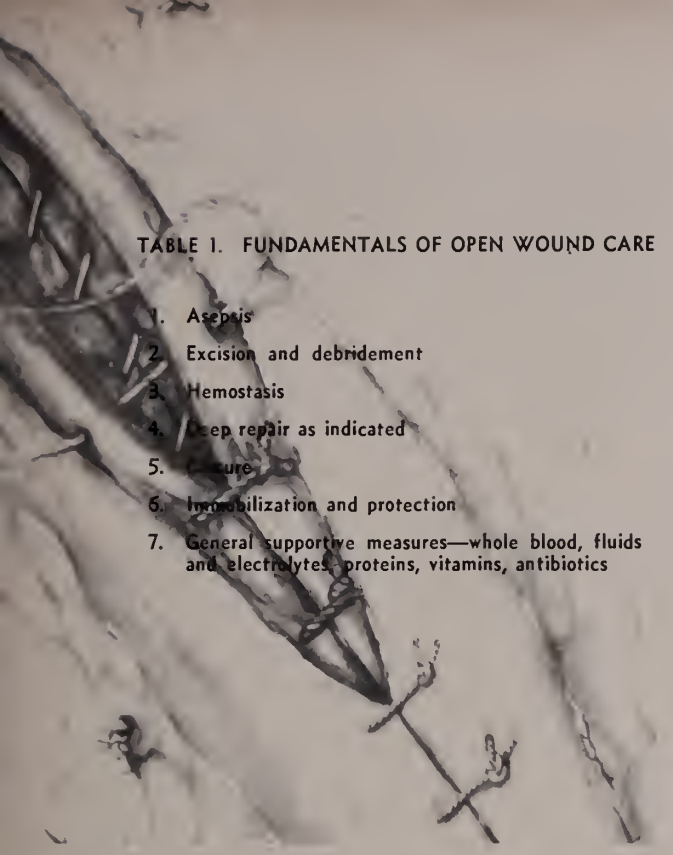


TABLE 1. FUNDAMENTALS OF OPEN WOUND CARE

1. Asepsis
2. Excision and debridement
3. Hemostasis
4. Deep repair as indicated
5. Closure
6. Immobilization and protection
7. General supportive measures—whole blood, fluids and electrolytes, proteins, vitamins, antibiotics

Close Your Wounds

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Surgical principles of wound care are well established and have been widely disseminated. Yet their importance is so great that they bear frequent repetition and clarification. Selected for discussion here is the fundamental of wound closure. I should like to make a plea for the early closure of wounds, list the advantages of such management, and outline the more common maneuvers that have proved useful.

A Plea for Early Closure of Wounds

Immediate closure of wounds is carried out as a matter of course in the commoner types of wounds, such as surgical incisions and ordinary lacerations. But what of the wounds associated with loss of tissue—the amputated finger-tip, the avulsion wound, or the third degree burn? These too should have the benefit of early closure. But all too frequently they are left open to "drain." All too frequently they are simply dressed and allowed to granulate and heal by scarring. The resulting impairment of both function and appearance is then ascribed to inevitable consequences of the wound itself rather than to poor wound management, as it should be.

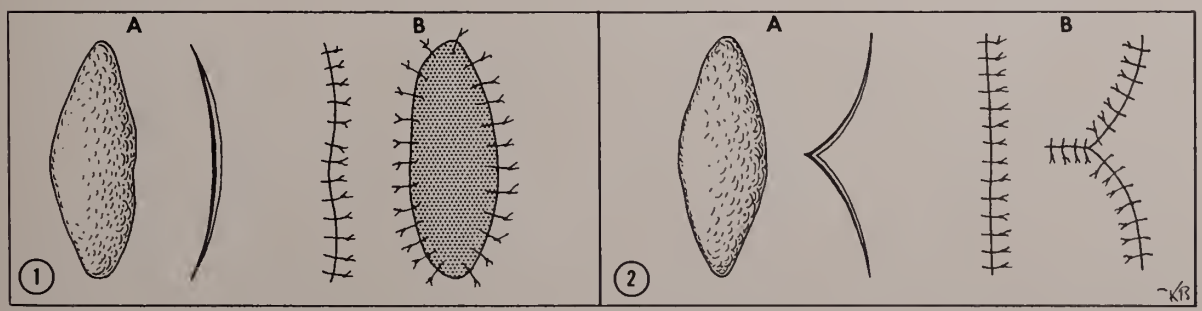


Fig. 1 Wound defect on left, resulting directly from trauma or from excision of devitalized tissue. Relaxing incision on right allows shift of tissues and immediate closure. Secondary defect closed with split-graft. Fig. 2 Wound defect closed by using a V-shaped relaxing incision. Secondary defect closed by suturing in a Y.

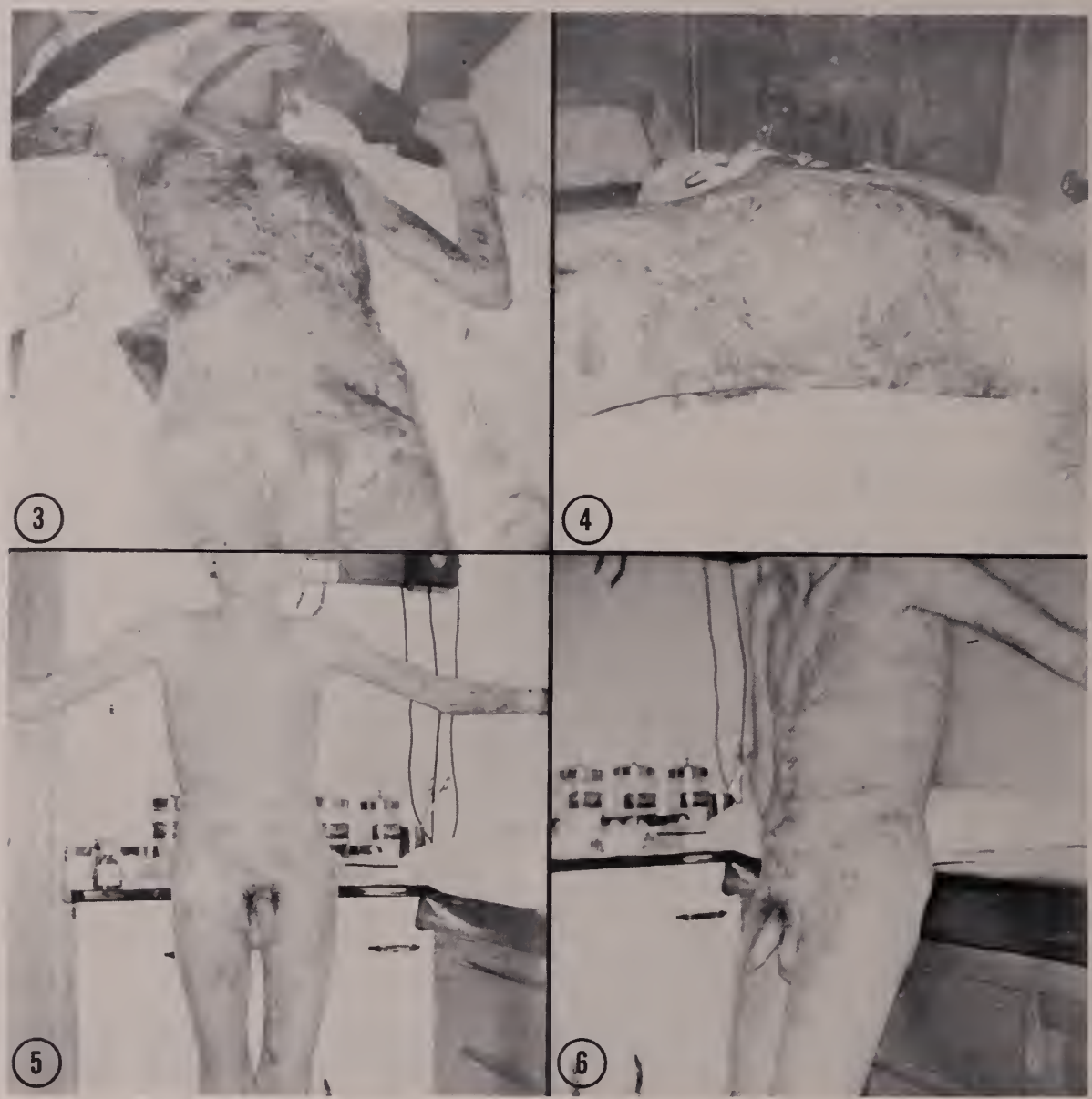


Fig. 3. Extensive third degree burns from tractor radiator coolant. Fig. 4. Burns involved both sides of trunk as well as anterior aspect. Fig. 5. Wound closed with thin split-gratts from back and legs. Fig. 6. Early coverage prevents protein depletion, scar contractures and other complications.

A common excuse for prolonged delay or neglect of early closure of wounds is that the patient's general condition will not permit the additional stress of a general anesthetic. Definitive wound care can often be carried out early under local or regional anesthesia, while resuscitative measures are being carried out simultaneously.

Early wound closure includes both primary closure and delayed closure. Sound surgical judgment is needed in deciding which method is indicated in a specific case. Surgeons who managed many wounds in the Armed Services need not be reminded of the advantages of secondary suture, or of the sometimes disastrous effects following primary closure of a grossly contaminated or infected wound.

Most open wounds encountered in civilian practice lend themselves to primary closure. The favorable circumstances in which the wound is incurred and the short interval between the injury and definitive care permit this.

There are some wounds, however, which are so badly contused and contaminated that delay-



Fig. 7. Late radiation effects on lower nose with chronic ulceration. Fig. 8. Pedicle delayed on scalp and left forehead. Fig. 9. Pedicle in place. Only hair-free forehead skin is used for permanent coverage on the nose. The hair-bearing scalp serves only to carry the blood supply. Fig. 10. The extensive open wound on the scalp and under side of the pedicle is closed with an intermediate split-graft to prevent infection, drainage and exuberant granulations. Fig. 11. Pedicle flap has been sectioned and inset. Scalp pedicle has been returned to its original position, after removing all of split-graft except small portion on left upper forehead, which will serve as permanent cover.

ed suture must be the method of choice. Wounds inflicted by farm accidents, explosions and tornadoes often fall in this class. The possibility of mass casualties from civilian disaster or atomic attack is always with us. Under such circumstances the longer delay between infliction of wounds and their treatment, as well as the severe contusion and contamination of wounds, will require handling along the lines of military casualties in the field. This will include wound cleansing and debridement, application of sterile dressings, systemic antibiotics and tetanus immunization, followed by secondary wound excision and closure on the fourth to seventh day.

Even less common are wounds that should not be closed at all because of danger of anaerobic infection. Certain penetrating wounds and bites, especially human bites, are examples.

While early closure of open wounds is the treatment of choice in all areas of the body, it is



Fig. 12. Surgical defect created by excision of most of lower lip and large section of underlying mandible for persistent squamous cell epithelioma. Immediate closure has been outlined, using large advancement flaps from either side. Fig. 13. Wound closure after healing is completed. Fig. 14. Reconstructed lower lip is tight but functional. No evidence of persistence after five years.

particularly important in certain areas and tissues. Hands comprise one of these regions. In the management of a wounded hand, early or late wound closure often means the difference between a good functional result and a poor one. Prompt closure is required in wounds which penetrate any of the body cavities. Open wounds of joints seriously jeopardize their integrity. Joints must be debrided of all foreign matter and devitalized articular cartilage, irrigated freely with saline, and then closed immediately. Cartilage in general should not be left exposed in a wound. Otherwise it is prone to low-grade drawn out infection, and the cartilage is extremely slow to sequestrate. Since cartilage does not accept a split-graft at all well, it is better to cover bare cartilage with soft tissues, either sacrificing enough cartilage to allow the soft tissues to be closed over it or covering the exposed cartilage with a pedicle flap. Early coverage of exposed dura or brain is likewise most important. Eyelids so disrupted as to expose the eyeball must have their continuity restored promptly in order to protect the globe, utilizing lid adhesions, rotation flaps and any other maneuver necessary.

Advantages of Early Wound Closure

1. Early wound closure provides the best possible barrier to infection.

2. It effects maximum conservation of tissues. When the wound is left open, subsequent infection, edema and fibrous contraction destroy tissues, converting a simple problem into a complex one.

3. It minimizes the inflammatory reaction, which includes edema.

4. It reduces pain and the need for frequent dressings.

5. It stops the loss of fluids, protein and electrolytes. It thus prevents the development of nutritional problems seen in extensive wounds such as third degree burns which have been left open for many weeks. These nutritional problems, in turn, delay healing.

6. It minimizes scarring and contractures, and makes for better blood supply to the part.

7. It speeds healing and facilitates early motion.

8. It minimizes the period of hospitalization and disability as well as time-loss from work.

9. It contributes to the maximum functional result obtainable.

10. It reduces the need for secondary repara-

tive or reconstructive surgery. In the occasional case where they are still needed, it aids materially in achieving the best possible functional and cosmetic result.

Helpful Maneuvers

In the vast majority of soft tissue wounds, closure can be carried out simply and directly, employing time-honored principles. These include thorough washing of the surrounding skin while protecting the wound; irrigation of the wound itself with saline; removal of foreign bodies, dirt and devitalized tissue; respect for and gentle handling of tissues; accurate and complete hemostasis; preservation of blood supply; use of fine ligature and suture material (stressing non-absorbable sutures in clean wounds); closure in layers using sutures to approximate and not strangulate tissues; pressure dressings; immobilization and elevation.

Less commonly, wound closure is complicated by the absence of an appreciable amount of tissue, due either to avulsion by the injury or to necessary excision of devitalized tissue during definitive wound care. Certain maneuvers are available to help in the early closure of these clean but complicated wounds. Those who assume responsibility for the management of wounds should learn and employ these maneuvers. They should not resort to protective dressings and systemic antibiotics, waiting for the wound to close by second intention.

The simplest of these maneuvers is undermining and advancement of wound margins. If the possibilities of this simple technique were fully appreciated and utilized, many patients would be spared delays in healing, prolonged morbidity and disability, extensive scarring and reduced function.

In cases where undermining and advancement of wound margins is not quite enough for wound closure, or where the resulting tension on the wound is too great, relaxing skin incisions can be very useful. The secondary wound thus created should in turn be closed, either with a split-graft or by a plastic procedure such as the V-Y (Figs. 1 and 2).

Few wounds require the addition of free skin grafts to complete closure. But where such additional coverage is required, one should not hesitate to use it. Furthermore, it is usually best done at the time of the original definitive care, not waiting for the wound to granulate. The

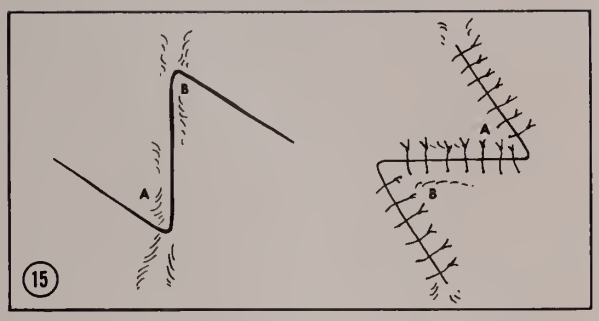


Fig. 15. Z-plasty, used most frequently to release contractures.

advantages and disadvantages of different thicknesses of free skin grafts should be kept in mind. Thin split-grafts are most certain to "take," even on a granulating bed (Figs. 3, 4, 5 and 6). On the other hand, they undergo marked contraction and do not wear as well as thicker grafts. Thick split-grafts contract less and stand up to wear and tear better, often providing permanent coverage. However, greater care is required in their application and they are less certain to "take" in their entirety. Intermediate split-grafts combine both the advantages and disadvantages of the above. It is important to remember that split-grafts may be used for wound coverage to achieve early healing, and then be excised later for considerations of improved appearance or function (Figs. 7, 8, 9, 10 and 11).

Full thickness skin grafts and composite grafts are rarely indicated in the primary closure of wounds. Technique of handling them is most exacting. Consequently they find their greatest application in secondary and reconstructive surgery. "Pinch" grafts, "sieve" grafts and other similar grafts are not recommended because the result is unsightly in both the donor and recipient areas, and because the appreciable scarring which attends their use detracts from the functional result.

Also uncommon in early wound closure is the need for pedicle flaps. These differ from free grafts in that they remain attached to the body and draw their blood supply through their base, or pedicle. Rotation flaps are taken from the margin of a wound and used to cover a critical area. The donor area from which the flap is taken is closed either by undermining and advancing the wound margins or by coverage with a split-graft. Rotation flaps and advancement flaps find their most frequent use about the face, scalp and neck (Figs. 12, 13 and 14). They are also utilized in extremeity wounds to cover bare

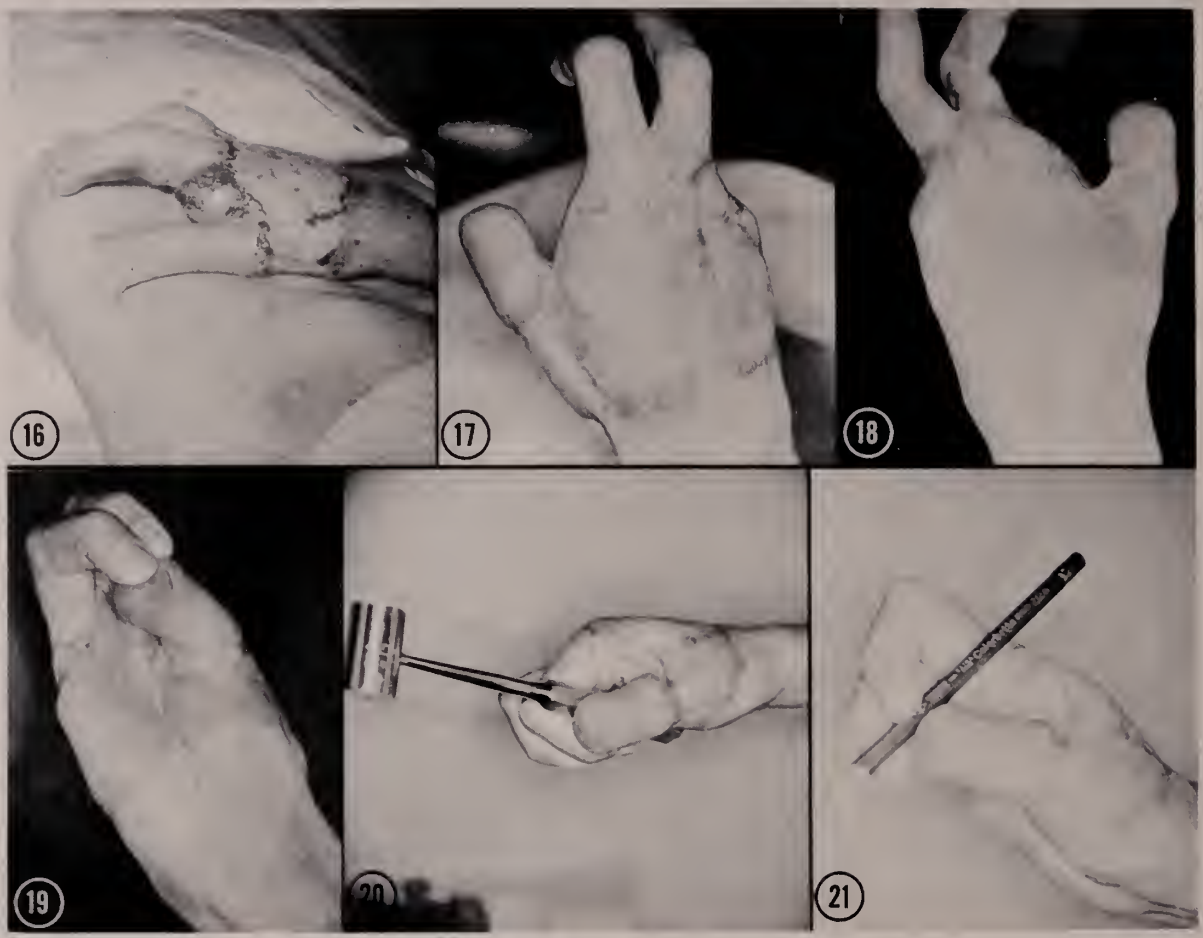


Fig. 16. Salvage of a hand severely traumatized in a dough-mixing machine. Devitalized index finger, little finger and most of thumb had to be excised. Remaining proximal phalanx of thumb, devoid of tendons or nerves, was covered with a single pedicle tube from the left abdomen. Fig. 17. Split-graft on dorsum of hand and tube pedicle on remnant of thumb after healing is complete. Fig. 18. Healed split-graft on palm. Surviving middle and ring fingers extended as much as possible. Fig. 19. Fingers flexed as much as possible, meeting shortened thumb. Demonstrates principle that if stiffening of finger joints is inevitable, the reduced range of motion will provide maximum function possible if fingers are held in position of semi-flexion while healing takes place. Fig. 20. Provision of a thumb which can be opposed to remaining fingers gives grasping action. This patient now makes his living using a telegraph key with his right hand. Fig. 21. Pincer action, as in writing with a pencil, is likewise most important.

bones, joints, tendons, and occasionally major blood vessels and nerves. Z-plasties comprise a special type of rotation flap (Fig. 15). They are used occasionally in the primary closure of wounds in order to prevent development of contractures. They are used most frequently in secondary reparative surgery to release contractures already formed.

Flaps from a distance represent still another maneuver which is frequently employed in reconstructive surgery, but which can on rare occasions be utilized to advantage in the early closure of wounds. Cross-finger flaps should find wider application in finger injuries as their many advantages are more fully appreciated. Somewhat less advantageous as an alternative to shortening fingers in order to close wounds are palm-to-finger flaps and cross forearm flaps. More extensive wounds on the fingers and sizeable avulsion wounds elsewhere on the upper extremity are often best covered by an immediate pedicle from the trunk (Figs. 16, 17, 18, 19, 20 and 21). Likewise in extensive avulsion wounds of the lower extremity exposing bone, joint or tendon, where a free graft will not provide adequate cover, an immediate cross-leg flap will solve the problem very adequately. Such flap coverage on extremities provides excellent skin cover in cases requiring secondary surgery on bones, joints and tendons.

One or more of these maneuvers may be required in a given case. Part of a wound may be closed by direct suture of the margins, while a split-graft is required to close the rest. If at all possible, close the wound in one operation and not in stages. When it appears unlikely that a split-graft will survive, use a pedicle flap.

Summary

Wound closure, one of the important fundamentals of open wound care, is selected for discussion. The vast majority of wounds encountered in civilian practice lend themselves to primary closure. Most of those remaining, in which the circumstances are not quite so favorable, can be closed by secondary suture on the fourth to seventh day. A plea is made for early closure of wounds, including the more complicated ones with loss of tissue.

Early wound closure provides many advantages. It prevents infection, conserves tissue, minimizes inflammation and scarring, speeds healing and contributes to the best possible functional and cosmetic result.

Those who assume responsibility for the management of wounds should learn and employ maneuvers which have proved useful in the closure of wounds complicated by loss of tissue. The commonest of these maneuvers includes undermining and advancement of wound margins, relaxing incisions, the V-Y procedure, split-grafts, full thickness skin grafts, local pedicle flaps and pedicle flaps from a distance. One or more of these maneuvers may be indicated in a given case.•

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Publication Plethora

The great majority of subscribers to the *Gazette* receive their copy by post, and this is another issue which joins the rising tide of medical literature which daily thuds, plops or flutters on to the pile beneath the letter box in so many homes. As an old-established institution, the *Gazette* may legitimately look around and blink at the number and variety of publications which join it in print week by week, and may ponder the problem they present more and more forcibly—where to begin and how many to read? Where once the standard journals, with their reports of original work and their annotations of clinical advances, could be regarded as the obvious means by which isolated medical men might keep abreast of their colleagues in the fields of research and of clinical specialisation, the situation confronting today's doctor is complex in the extreme. Journals range from Hansard-like accounts of learned societies and their doings through the specialist organs of confessedly limited appeal, to the publicity products of pharmaceutical firms, which form an increasingly important part of the volume of reports of original research and advances in treatment. The student, to whom journals are available at bargain prices, and who is presented with the glossy and extremely attractive publicity magazines, may reasonably feel despondent at the volume of printed matter which is thus added to the textbooks on his shelf. A recent correspondent in the *British Medical Journal* points out that in the proliferation of medical literature, the difficulty is that there is something of value in almost everything that is published. Many of us have learned to glance through the summaries of papers before deciding which ones to read, while we have all heard apocryphal stories of the cupboard doors throughout England which, if incautiously opened, release an avalanche of those solid cylinders, the tightly wrapped weekly journals. A pleasant relieving factor in the general melee is exemplified by journals such as the *Gazette,* which mingle clinical articles with news of a particular hospital and its work; its staff and its patients, their sports and activities, linking past and present members of a living community. The readiness to add to the volume of medical litarature thus evinced by doctors and firms, is more than matched, however, by the eagerness of the public to read medical information of almost any description, which leads to success stories such as that of *Family Doctor.* The clearing of the Victorian clouds and cobwebs of false modesty has led to a rebound phenomenon of which the merits are in extreme cases, in some respects debatable. It has been said that doctors, with photographers and fortune-tellers, are the men most irresistible to the egoist in each of us. Certainly this fascination, allied with the volume of honest inquiry, leaves no doubt that the supply of medical literature for the layman is still far from outstripping the demand.

From Guy's Hospital Gazette, Vol. 52, Feb. 1, 1958, pp. 41-42.

Control of Bleeding After Dermabrasion

WALTER SCOTT BROWN. M.D.
SEATTLE, WASHINGTON

Methods of eliminating scars, pits and blemishes from the skin have concerned the physician and patient throughout medical history. It is noted that the Papyrus Ebers,[1] 1500 B.C., the oldest medical document extant, prescribes an abrasive ointment designed to make the skin smooth. Needs and desires for a better method of removing scar tissue have been so motivating that many methods have been suggested and used. Some of these are acupuncture, scarification (multiple incisions), electrodesiccation, surgical shaving, surgical excision, chemical caustics, cryotherapy, abrasion and dermabrasion with ethyl chloride. All of these methods, of course, tend toward the same purpose of removing the lesion in equivalent area and depth. When the lesion is removed no visible scar should result.[2]

The use of dermabrasion in removal of scars, pits and blemishes has reached a point of widespread acceptance.[2-6] Even though this technique is not flawless, it has offered a good approach to a difficult problem.

One of the drawbacks of the dermabrasion method of removing scar tissue has been the oozing type of bleeding encountered during surgery and in the postoperative period. A review of the literature demonstrated that Adrenosem Salicylate has been used widely in many fields of surgery[7-15] such as tonsillectomy, adenoidectomy, osteoplasty, alveoloplasty and in many other procedures which called for control of capillary bleeding. My own experience with it has been in rhinoplastic reconstruction, skin grafts, cleft lips, cleft palates, rhytidectomies, scar excisions and other types of plastic procedures.

The purpose of this article is to offer a preliminary report on the use of Adrenosem Salicylate, a systemic hemostatic agent, in dermabrasion procedures in an attempt to evaluate its ability to control bleeding, primarily that which occurs postoperatively.

Evaluation

In an attempt to evaluate the drug in the light of procedures which might be fair to it and to the surgeons who may find indications for its use, I thought of many methods of study. I was seeking a reasonably accurate method of determining its effect as well as an adequate and accurate method of determining the amount of blood loss without and with the drug. It was decided that the most ideal operative procedure would be that of face sanding or dermabrasion, because the two areas of bleeding surface could be controlled accurately to be of equal extent. Thus the cheek was decided upon.

Procedure

A method of calculating the blood loss was most important in order to evaluate the hemostatic effect of the drug correctly. My procedure was to transfer the blood soaked sponges into plastic bags immediately and then seal the bags to prevent evaporation. After surgery, the plastic bags were opened and dried in a 37 C. oven to constant weight. While the difference in weight would not give the weight of blood loss directly, it was calculated by a standard figure which was established by using a measured quantity of blood with the same type sponges and plastic bags.

Dermabrasion was carried out under general

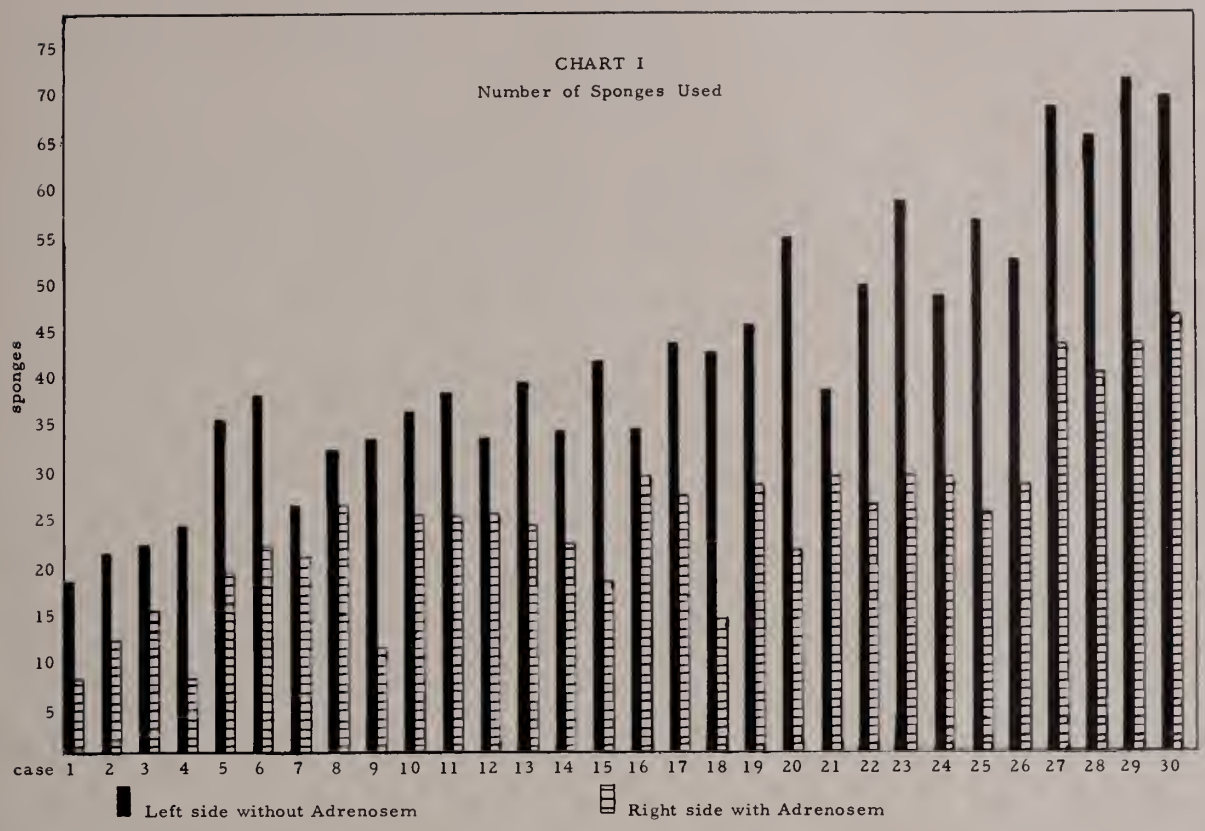

CHART I
Number of Sponges Used
sponges
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
case 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Left side without Adrenosem
Right side with Adrenosem


CHART II
Grams of Blood Loss
grams of blood
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
case 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Left side without Adrenosem
Right side with Adrenosem

Right cheek operated
after Adrenosem administered.

Left cheek operated
first without Adrenosem.



or local anesthesia, depending on the patient and requirements. Operating procedure was the same for both cheeks, excepting the administration of Adrenosem Salicylate prior to surgery on the second cheek. The first cheek was operated on as required with all sponges being placed in a plastic bag. When the operation on the first cheek was completed, a clean sponge was placed over the area and removed after 10 seconds. After 30 seconds the cheek was photographed. At this time 2 ml. of Adrenosem Salicylate was administered intramuscularly. After a 30 minute lapse, which I thought adequate time for the drug to take effect, the operating procedure was repeated on the remaining cheek in every detail, including sponging and photography. This same sequence in photography was followed in all cases photographed.

Cases

Over the past two years I have completed approximately 200 dermabrasion procedures in which this technique was used. Since this is intended to be only a preliminary report, I will not endeavor to list all of the patients and histories, but am presenting the average findings in the cases accomplished and the most successful and the least successful of all cases mentioned.

The accompanying photographs show the areas operated by dermabrasion with and without treatment with the hemostatic agent.

Case 1 represents the least variation in numbers in which the number of sponges was reduced from 18 on the untreated side to 8 on the treated side. The calculated weight of blood loss was reduced from 31 Gm. on the untreated side to 11 Gm. on the treated side.

Case 2 represents the greatest variation in numbers. The number of sponges was reduced from 48 on the untreated side to 29 on the treated side. The calculated weight of blood loss was reduced from 173 Gm. on the untreated side to 80 Gm. on the treated side.

Averaging the calculated amount of blood loss between the treated and untreated cases of the entire series, I found that after treatment there was an average calculated reduction of loss of 47.9 Gm. of blood per patient. It is interesting to note that the variation was uniformly greater in all cases where a general anesthetic was used than in those where a local anesthetic was used. It is my thought that the epinephrine used in a local anesthetic is of some benefit in controlling bleeding and it is likely that the drug is not quite as effective when used with a general anesthetic, due to some loss of nerve supply to capillaries which does not exist as completely under local anethesia. It should be mentioned that Adrenosem Salicylate is compatible with any type of anesthetic and can be given simultaneously. I mention this because it has been observed[5] that cyclopropane should not be used in conjunction with epinephrine because of the influence of the combined drugs on the cardioregulatory mechanism. Adrenosem Salicylate has no sympathomimetic action. It does not raise the blood pressure significantly or affect the cardiac rate or volume. I also observed no objectionable side effects in any patient, which confirmed reports in the literature,[8-11,13-15] on the absence of side effects and low toxicity.

Summary

An attempt has been made to evaluate effectively a new systemic hemostatic agent. Over 200 dermabrasions and other surgical procedures have been completed using this drug. A significant reduction in blood loss was observed after use of the drug as determined by blood weight, total sponges used and as illustrated by color photography. In my mind, this drug is a valuable aid to plastic surgery in its ability to reduce blood loss and provide a clearer operative field.•

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Acute Post-Traumatic Renal Failure

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Acute post-injury depression of kidney function without actual physical damage to the kidney is etiologically related to decreased renal blood flow attending the shock of the extraurinary injury, together with a toxic nephropathy occasioned by liberation of hemoglobin or myoglobin pigment. Occasionally the degree of shock and the amount of pigment are not impressive so that the sudden realization that the patient is oliguric or anuric comes as a surprise.

The pathology of the nephropathy which ensues is that of focal tubular necrosis. Generally, healing takes place in 10 to 14 days, but in certain instances clinical cure requires as little as 3 or as many as 30 days. Prophylactic treatment, if it were possible, might prevent the tubular damage.

Prompt treatment of the shock with restoration of blood volume and blood pressure will restore the hydrostatic pressure necessary to glomerular filtration and tubular nutrition. Where large hematomata or necrotic or infected wounds are present, wide incision, debridement, and drainage will decrease the amount of abnormal hemoglobin or myoglobin pigment available for deposition in and destruction of renal tubules.

The diagnosis of acute post-traumatic renal failure devolves on several characteristic associations. The majority of cases of acute renal failure follow a precipitating episode. The ingestion of heavy metals or alkaloids, and transfusion of mismatched blood are well-recognized examples of this, as are multiple severe contusions and lacerations. The characteristic syndrome is that of oliguria of less than 20 cc. per hour, hyponatremia, acute gain in body weight, and elevation of the blood urea nitrogen.

In differentiating toxic nephropathy from other causes of acute oliguria, it is essential that urinary obstruction due to hematomata or preexisting disease be excluded by demonstration that the urinary passages are patent. Most often this can not be accomplished without instrumentation because kidney function at this time is so poor as to preclude satisfactory visualization by excretion urography.

Treatment

Treatment of toxic post-traumatic nephropathy is only symptomatic. There is no known specific therapy which speeds healing of the kidney lesion. It is, however, known that the majority of such lesions can heal spontaneously provided that the patient's electrolyte and water balance are maintained satisfactorily. The treatment consists of water restriction, sodium restriction, administration of calories, removal of the chloride ion, prevention of hyperkalemia, and general supportive measures.

Perhaps the most important consideration is the restriction of water. It is better to avoid administration of oral fluids for several reasons. The volume of parenteral fluids administered should be limited to the amount of urine excreted during the preceding day plus an allowance of 750 cc. for the insensible loss and minus 300 cc. for the water produced by oxidation of food stuffs. An important but little used way of checking on the effectiveness of water restriction

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is daily weighing of the patient. As better bed scales become available, weighing becomes increasingly easier and should be routine. Ideally, the patient should lose a pound a day. An additional way of ascertaining the effectiveness of water restriction is to determine the serum sodium. Since little or no sodium is lost in the urine, decreasing serum sodium indicates overhydration. When the serum sodium is less than 130 mEq. per liter, stringent water restriction is indicated. Any fluids which are given should contain 20 to 50 per cent glucose or 1/6 molar sodium lactate.

Sodium

Restriction of sodium must also be practiced to prevent edema, but sodium must be given to combat hyperkalemia, hyponatremia, and acidosis. Sodium should not be given unless sodium is lost. If possible, treat hyponatremia by water restriction.

Acidosis may be combated by gastric suction and hence it is wise to avoid oral feedings. Another contraindication to oral feeding is that many of the patients are nauseated and are unable to retain fluids. Gastric suction can remove large amounts of chloride. Acidosis can be reduced by giving calories to spare protein breakdown which liberates phosphate and sulfate. Acidosis is further combated by the administration, whenever sodium is advisable, of sodium lactate rather than sodium chloride. But, sodium lactate should not be given when the serum carbon dioxide is greater than 30 mEq. per liter, which is rather unusual in the acute anuria syndrome.

Calories must be given to spare protein breakdown with liberation of potassium, phosphate, and sulfate. Ordinarily, 100 Gm. of glucose per day, that is 200 cc. of 50 per cent glucose, can be given easily. In addition, ethyl alcohol can be given slowly in the amount of 50 cc. daily without intoxication. The administration of hypertonic intravenous solutions is aided by insertion of polyethylene catheters and addition of 10 mg. of heparin per liter of solution.

Removal of chloride is largely accomplished by gastric suction. The gastric juice contains chloride in excess of sodium, water, and potassium. The volume of the gastric aspiration can be replaced with sodium lactate or hypertonic glucose solution administered intravenously as indicated. The sucking of ice chips stimulates gastric secretion and the patients appreciate the alleviation of the dry mouth and thirst which they often experience.

Potassium

Hyperkalemia with its toxicity to the myocardium must be prevented. Calories from glucose prevent liberation of potassium from tissue breakdown. The prevention of acidosis minimizes the cardiotoxic effects of hyperkalemia. Gastric suction may remove 5 to 20 mEq. of potassium daily and is certainly worth-while in treating this aspect of the acute anuria. If hematomata or necrotic wounds are present, thorough debridement and drainage are desirable to obviate absorption of potassium.

When the above treatment, designed to prevent hyperkalemia, is unsuccessful and cardiotoxic effects are recognized by electrocardiography, temporary improvement can be achieved by the administration of 5 Gm. of calcium gluconate plus 20 units of insulin in 50 per cent dextrose every four hours. Sodium lactate added to the infusion aids by inducing alkalosis which decreases the toxicity of the high potassium levels. It may be necessary to resort to extracorporeal dialysis or peritoneal lavage to save the patient from hyperkalemic, cardiotoxic death. This requires considerable special experience, and equipment which is not readily available. Conservative management, when instituted early and assiduously pursued, avoids the need for dialysis.

The Early Recovery Period

In successful cases, sometime between 3 and 30 days, the patient's urinary volume will exceed 1,000 cc. Gastric suction can be discontinued at this time. Oral feedings of high caloric value should be initiated.

The kidneys at this time excrete large volumes of water, but are unable to conserve base. Sodium and potassium depletion must be anticipated. The only satisfactory way of estimating these losses is to quantitate them in the laboratory. When the urine volume, which may exceed 5 L., is high, the best practice is to give fluids equal to the preceding day's output, but not exceeding 3,000 cc. When the urinary sodium loss exceeds 200 mEq. per 24 hours, it should be replaced. This also applies for losses of potassium exceeding 40 mEq. per 24 hours and chloride of 200 mEq. per 24 hours.

A convenient way of estimating the urinary

sodium is determination of urinary chlorides, which is a relatively simple bed-side test. This is reliable if the *p*H of the urine is less than 7, and is a great assistance in calculating electrolyte requirements. However, if the *p*H of the urine is alkaline, sodium loss may greatly exceed chloride, and serial serum sodium and hematocrit determinations are essential to satisfactory management.

Summary

In summary, patients who have severe injuries with shock may liberate hemoglobin or myoglobin pigment, which, in the presence of reduced renal blood flow, leads to oliguria or acute anuria. Prompt treatment of shock and drainage of hematomata may be of prophylactic value. Oliguria, hyponatremia, acute gain in weight and elevation of blood urea nitrogen should be anticipated. Attention to fluid and electrolyte balance should lead to early diagnosis. Administration of large quantities of water and sodium in the immediate post-traumatic period are unwise and often make subsequent management exceedingly difficult. The treatment of the acute anuria syndrome consists of water restriction, sodium restriction, administration of sufficient calories to prevent hyperkalemia and acidosis, removal of chloride and potassium by gastric suction, attention to and prevention of hyperkalemia, and careful replacement of losses during the diuretic stage of recovery.•

University of Washington School of Medicine (5).

AMA to Publish Tabloid Newspaper

The Board of Trustees, meeting in Chicago recently, authorized publication of a new, 16-page tabloid newspaper called *The AMA News.* The newspaper which is in its formative and planning stages is expected to be distributed every two weeks to approximately 200,000 physicians.

It will bring to the attention of members the multitude of projects and activities carried on by the association, as well as all non-scientific news of interest to the profession. Publishing a newspaper for members was selected as a means of improving communications between the association and its members.

The AMA News project was discussed with many people, inside and outside of medicine. In nearly every instance, it was felt that such a publication, built on a news format, was needed.

Physicians wlil be kept informed of what is going on in medicine in all 48 states through *The AMA News.*

The publication will carry advertising, and the editorial staff, yet to be selected, will work at the association's Chicago headquarters.

The first issue is expected to be ready for distribution at the AMA annual convention in San Francisco, June 23-27.

Britain to Boost Health Charges Again

Britain's chancellor of the exchequer announced that contributions to the National Health Service by those using it and by employers would be boosted again in July.

The chancellor told the House of Commons that the whole structure of the social services would be imperiled unless their cost to the treasury was kept in bounds.

The chancellor estimated the cost of the health service during the coming fiscal year at $2,072,000,000.

Carcinoma of the Breast Associated with Pregnancy

Report of Fifty-Six Cases Followed Five Years or More

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Many patients operated on for breast cancer during pregnancy or nursing survive for long periods. Their survival is comparable to that of patients without these additional problems. Majority of the patients who became pregnant after treatment of their tumors have survived, without evidence of recurrence, for very long periods.

The 56 cases in this series, followed for five years or more, have been collected from six Seattle and three New York Hospitals. In about

Table 1. Cases of Pregnancy or Nursing Found in Series of Breast Cancers.

	Cases	Coincident carcinoma and pregnancy or nursing	Pregnancy occurring after treatment	Total
Collected series (1850-1953)	42,627	734*	232	1,236
New York City				
Roosevelt Hospital	987	5	6	11
University Hosp.	190	2	1	3
Bellevue Hosp.	127	5	3	8
Seattle				
The Doctors Hosp.	257	4	----	4
Providence Hospital	347	5	1	6
Tumor Institute	403	12	----	12
Swedish Hospital	943	16	----	16
Totals	45,881	783	243	1,296

*The 270 cases by Adair. are reported incompletely.
(Reprinted from issue of June 1955, page 662, by permission of Surgery, Gynecology & Obstetrics.)

2 per cent of all breast cancers seen at several of these hospitals, pregnancy was a factor. In a collected series of 45,881 cases the incidence is 2.8 per cent (table 1). About 10 per cent of women with breast cancer are in the childbearing age group. An incidence of associated pregnancy of nearly one in three would be expected in this group. The incidence of breast cancer in obstetrical services is much lower, about 3 per 10,000 pregnancies (table 2).

Table 2. Incidence of Breast Carcinoma Among Pregnant Women.

	Pregnancies	Breast carcinomas
Bellevue Hospital, New York Jan. 1, 1933 to May 31, 1950	37,790	7
Geneva, Switzerland, 1907 to 1939	41,094	2
Elizabeth Steele Magee Hospital, Pittsburgh, Pennsylvania	45,000	4
Presbyterian Hospital, New York	37,740	36
The Doctors Hospital, Seattle, October 1945 to July 1954	16,855	4
Providence Hospital, Seattle, 1944 to 1953	23,372	5
Swedish Hospital, Seattle, 1938 to 1954	36,448	16
Totals	238,299	74

Represents roughly, 3 cases of breast carcinoma per 10,000 pregnancies.
(Reprinted from issue of June 1955, page 662, by permission of Surgery, Gynecology & Obstetrics.)

Mastectomy During Pregnancy

The 13 patients who had mastectomies during pregnancy are illustrated in the bar diagrams in figure 1. Of the 5 with disease limited to the breast, 2 survived over 14 years; 1 is still alive without evidence of disease after 15½ years (Fig. 2), while the other died of a new cancer in the opposite breast after 14 years. The third patient is without evidence of recurrence after five years. All the patients with axillary spread were dead within four years. All of the local tumors occurred in the first two trimesters of pregnancy, while those with axillary spread occurred throughout pregnancy. Of two patients who

Fig. 1. Thirteen patients having mastectomy during pregnancy. Of special interest are the two long term survivors.

had further pregnancies, one (Case 11) with very advanced disease had a therapeutic abortion without appreciable effect on the course of disease, while the other (Case 2) was allowed to proceed to term with no immediate untoward effects.

Mass Noted During Pregnancy

There were 17 women in whom a mass was noted during pregnancy, but treatment of the

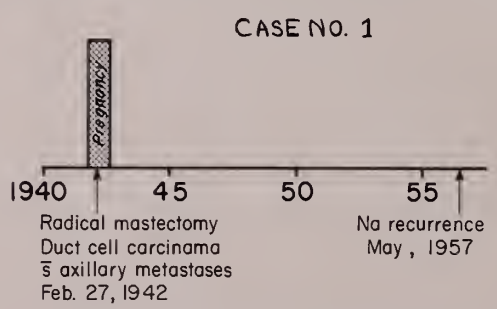


Fig. 2. This patient was operated on in mid-pregnancy with no recurrence after 15½ years.

breast cancer was given post-partum (Fig. 3). Two patients (Cases 15 and 22) noted a cancer during one pregnancy, but had no treatment until the end of a second pregnancy. The other patients were operated on after the first pregnancy. Delay in treatment was the outstanding feature of this group, ranging up to 48 months after the tumor was first noted by patient or physician. Details of each patient may be seen in the bar diagrams. Three patients had localized disease and 14 had spread. Two of the 3 with localized disease survived five or more years whereas only 1 of 14 with spread survived this length of time. Only 3 (Cases 21, 23 and 25) of the group had inflammatory type carcinomas. One had a therapeutic abortion with no obvious effect on the course of her disease.

Treatment During Pregnancy or Nursing

Thirteen patients were treated during pregnancy or nursing when the tumor was found during nursing (Fig. 4). Three of the 5 patients with disease localized to the breast survived five or more years. Two of the 8 patients with metastases survived five or more years. One patient had a therapeutic abortion without appreciable benefit. The delay in treatment in this group was 0 to 12 months—very conspicuously less than in the previous group.

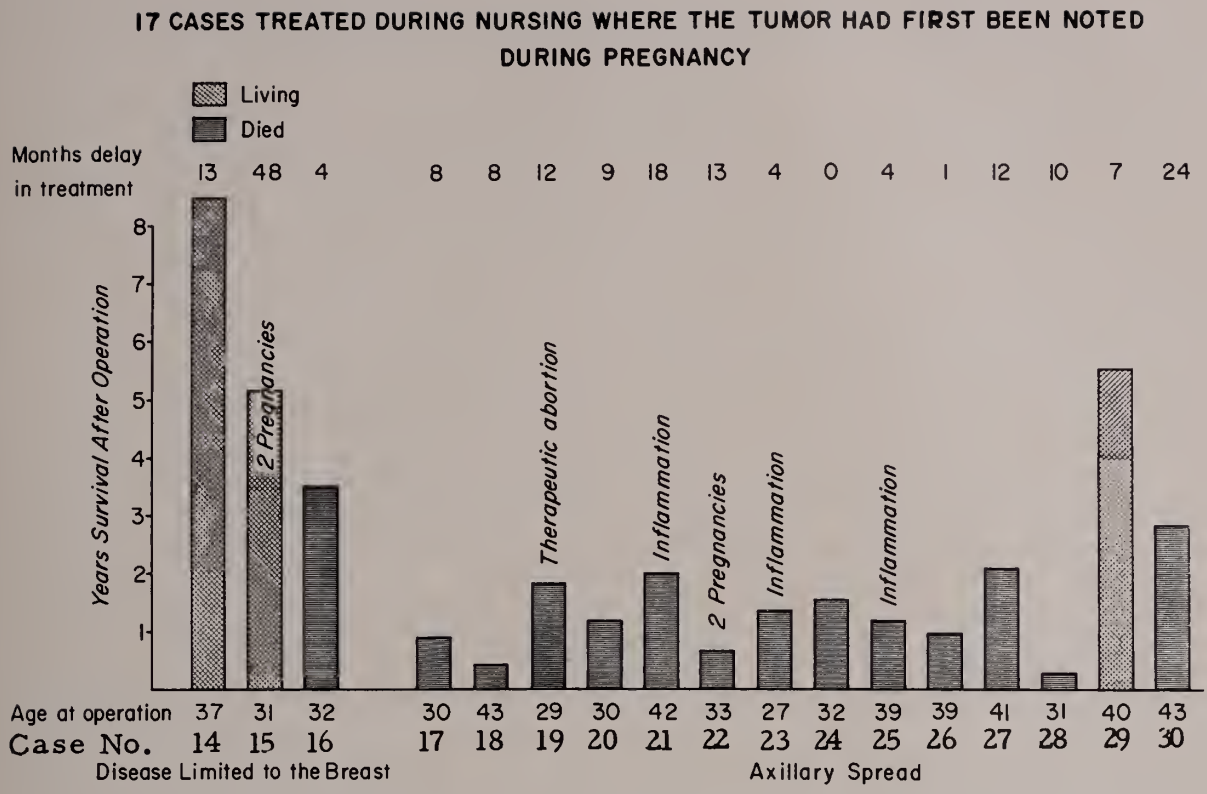


Fig. 3. Marked delay in therapy is the rule rather than the exception in this group of patients operated on during nursing.

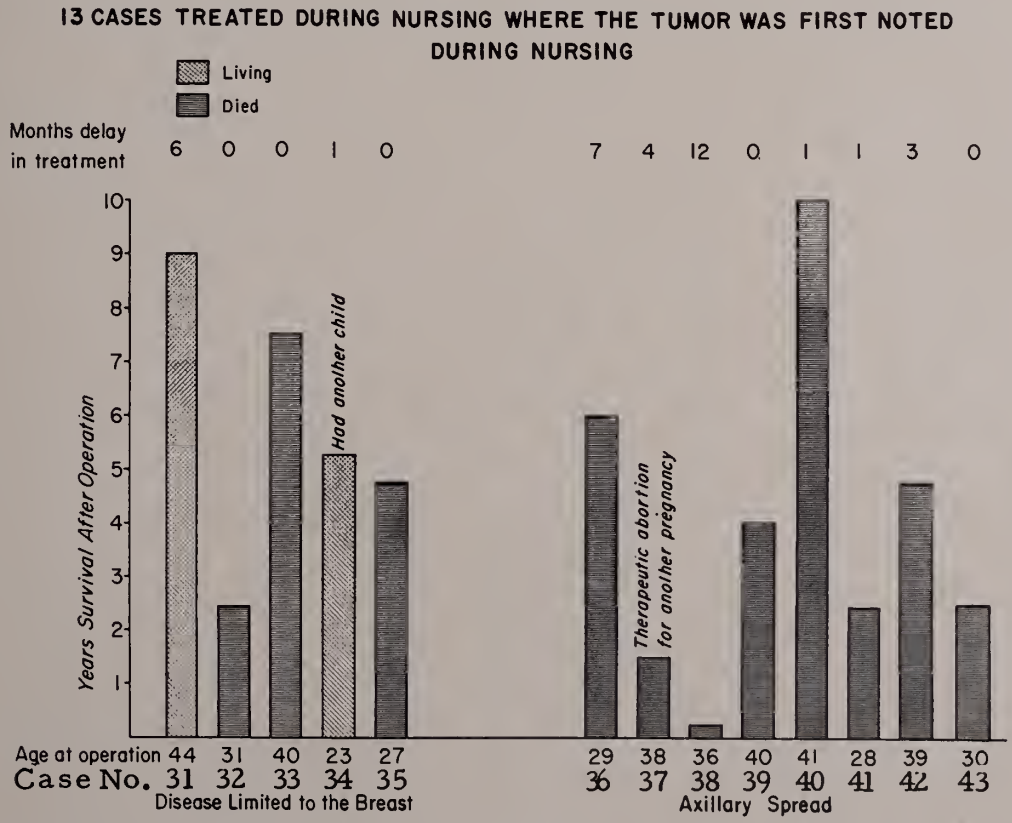


Fig. 4. Both the survival rate and the delay in treatment are much improved over figure 3.

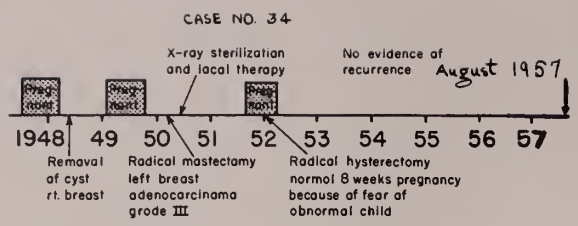


Fig. 5. This patient was still water skiing during the summer of 1957.

One patient (Case 34) (Fig. 5) is an example of a promptly treated patient who had had very little difficulty in spite of the dire predictions of her physicians.

Subsequent Pregnancy

Twelve patients operated on for breast cancer became pregnant later (Fig. 6). Of the 8 patients who had localized disease at the time of operation, all but 1 survived for 10 or more years, 2 for more than 30 years. Case 44 (Fig. 7) is an excellent example of a patient who had two children after mastectomy, and who is without evidence of recurrence 35 years after operation. The few patients with axillary spread were dead within five years. It is of interest that all patients in this group became pregnant within four years or less after operation.

Comparison of My Group with Other Similar Series

There was close correlation between my series and those of Harrington (Mayo Clinic) and Westberg (Radiumhemmet, Stockholm) (Fig. 8). In the three series, most of the patients without metastases and first treated during pregnancy or lactation survived over five years (Harrington 64.5 per cent, Westberg 63.3 per cent and White 61.5 per cent) while the ten year survivors in Harrington's series (54.2 per cent),

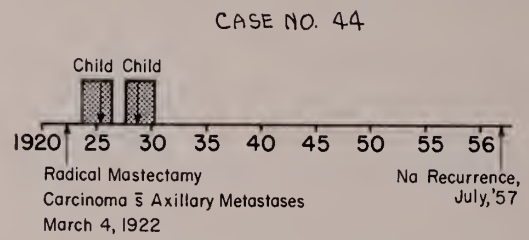


Fig. 7. This patient is working in an editorial capacity 35 years after her radical mastectomy. She had children 31 and 33 years ago, four and two years after her mastectomy.

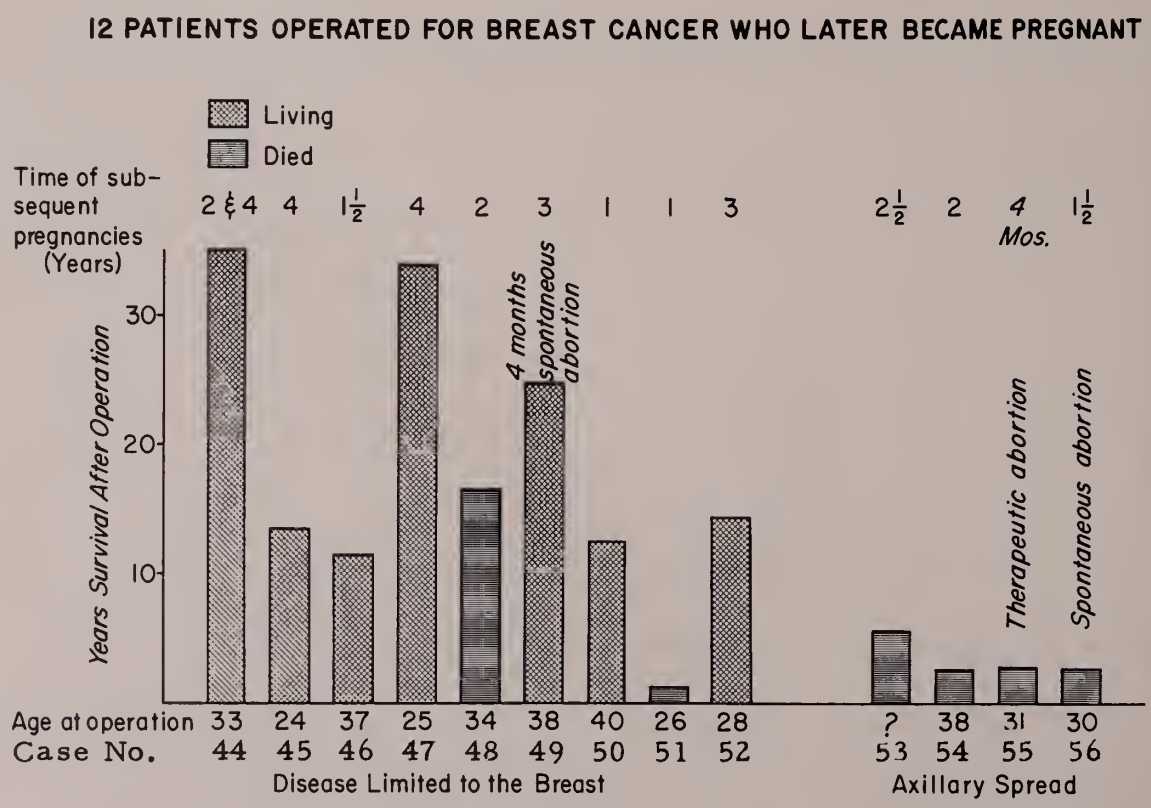


Fig. 6. The long term survivals here are very encouraging.

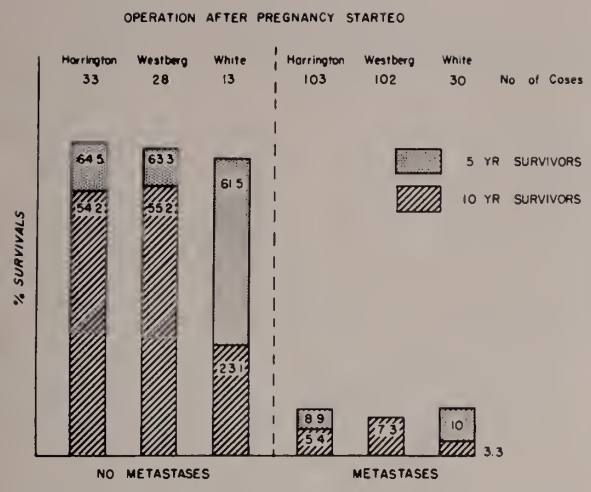


Fig. 8. Comparison between my series and those of Harrington and Westberg of patients operated upon after pregnancy started.

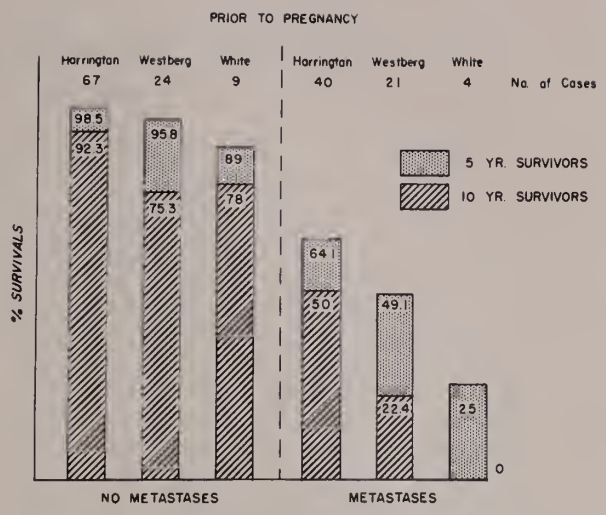


Fig. 9. Comparison between same series as in figure 8 of patients operated upon prior to pregnancy. (Reprinted from issue of June 1955, page 664, by permission of Surgery, Gynecology & Obstetrics.

Westberg's (55.2 per cent) were higher than in my group (23.1 per cent). The five and ten year survivals in all three groups were uniformly poor in the patients with metastases.

The results are also parallel in the groups of patients who later became pregnant (Fig. 9).

The three series are also of interest in that they point up a possible reason for the alleged unusually poor results in patients treated during pregnancy or nursing. Majority of the patients had at least axillary metastases: 103 of 136 in Harrington's group, 102 of 130 in Westberg's collection, and 30 of 43 in my group for a total of 235 out of 309 patients treated (76 per cent). One can only speculate as to whether this is due to delay or due to an inherent change in the tumor at this time.

Summary

1. Many patients who develop breast cancer during pregnancy or nursing survive for long periods of time when treated adequately.

2. Patients with breast cancer and pregnancy are usually in an advanced stage of their disease, and for this reason often do poorly.

3. Although there appears to be some selection of cases, the patients who become pregnant after mastectomy do very well, with an unusually high percentage of five and ten year survivals in this series.

4. Abortion cannot be clearly shown to have a favorable effect on the course of the disease. •

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Bilateral Ureteral Ectopia

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Ureteral ectopia must always be ruled out in girls manifesting urinary incontinence. Furthermore, if ureteral ectopia is found, the possibility of bilateral ureteral ectopia should be considered.

This case report points out two interesting facets of ureteral ectopia; namely, the familial tendency and possibility of bilateral anomaly.

In the male, the ectopic ureteral orifice always lies proximal to the external sphincter (e.g., prostatic urethra, ejaculatory duct, seminal vesicle) hence infection and not incontinence is the most prominent sign. The female, however, heralds her anomaly by incontinence since the ectopic ureteral opening usually lies distal to the sphincter.

Embryology

The embryologists have shown us that the ureteral bud arises from the ventral urogenital cloacal segment near the origin of the Wolffian duct. Subsequently, the ureteral buds migrate medially and ventrally to become incorporated into the lateral portion of the vesical trigone. Failure of migration of the ureteral bud results in ureteral ectopia. When reduplicated ureters have been formed, it is usually the lower ureteral bud (draining the superior pelvis) which is ectopic.

We have been indoctrinated with the fact that when polycystic kidney disease is discovered in a family, it is advisable to inform the family that other members may be so afflicted and should be examined. The same advice should be given to the family when one of the members has been found to have ureteral ectopia.

Diagnosis

The diagnosis of ureteral ectopia should be suspected when there is history of incontinence, night and day, in the female. In the male, the history of repeated urinary infections is suggestive.

Direct examination of the vulva in the female and intravenous pyelograms with delayed films usually will establish the diagnosis. In the male, urethroscopy plus delayed intravenous pyelograms will establish the diagnosis.

In either sex, a high degree of suspicion is the best diagnostic aid.

CASE REPORT

This 6 year old girl was first seen in September, 1955. According to her mother, the girl had "wet pants" all the time. Significantly, I had performed a left hemi-nephro-ureterectomy, for ureteral ectopia, on the patient's older sister, three years previously.[1] Questioning brought out the fact that the patient had been cystoscoped recently and had been declared normal.

Examination of the vulva showed some moisture on the mucosa just beneath the external urethral meatus. I was unable to identify an ectopic orifice, however.

The patient was admitted to a hospital and an intravenous pyelogram, with delayed films, was done. This showed a faint pool of dye in the region of the superior pole of the right kidney, above the normal-appearing pelvis and calices. During cystoscopy, indigo carmine was given intravenously but the dye failed to appear at the ectopic opening. With the history of incontinence, the vulvar findings, and the pyelographic evidence of a superior pelvis in the right kidney, a diagnosis of ureteral ectopia was made. The patient had rgiht hemi-nephro-ureterectomy. An atrophic superior renal pole was removed along with a very dilated and tortuous ureter.

However, following surgery the patient continued to demonstrate incontinence, much to the embarrassment of the surgeon. Subsequently, the patient's vulva was again examined and this time a spurt of urine could be seen coming from an opening in the vestibule of the vagina. I was able to introduce the point of a 25 gauge needle into this opening and inject some opaque medium. The x-ray revealed that the anomaly was bilateral and the patient had a reduplicated superior pelvis and ureter on the left emptying into the ectopic opening. The patient was again taken to surgery and a left hemi-nephro-ureterectomy was done. Needless to say, the patient has been free of incontinence since that time.

Summary

A case of bilateral ureteral ectopia from bilateral reduplicated pelves and ureters has been presented to point out the possibility of bilateral involvement with this anomaly and the importance of a family survey when the anomaly has been diagnosed. •

524 Mayer Building (5).

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Internal Mammary Ligation

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Since the turn of the century we have witnessed great advances in surgical methods of treatment in areas previously regarded as purely medical. This is understandable in the light of the unhappy results obtained from medical management of such conditions as brain tumors, lung cancer, and many types of congenital and acquired heart diseases. In general, it might be stated that the growth of surgical methods of treatment in diseased states is in direct proportion to the failure of medical therapy. Thus, in the management of ischemic heart disease, because of the relative failure to obtain lasting results in a large proportion of cases, varied attempts have been made during the past two or three decades to increase the blood supply to the heart by surgical methods. Chief among these may be mentioned:[1]

1. Grafting of extracardiac tissues, such as pectoral muscle (Beck), lung (Lezius), or omentum (O'Shaughnessy) to the myocardium.

2. Cardio-pericardiopexy, produced by spraying the epicardium with an irritating substance such as bone dust, asbestos (Beck), or magnesium silicate (Thompson). A variety of other chemical irritants have been used, including starch, glycerine, formalin, phenol, sodium morrhuate, and sodium aleurate.

3. Ligation of the coronary sinus with or without coronary artery denervation (Fauteux).

4. Operations on the sympathetic nervous system, including cervico-thoracic sympathectomy, stellate ganglionectomy and posterior root section.

5. Transplantation of the internal mammary artery into the myocardium of the left ventricle (Vinberg).

6. Arteriolization of the coronary sinus by anastomosis of extracardiac blood vessels to the coronary sinus, utilizing a vein graft to the aorta (Beck and associates).

Most of these procedures, because they are attended by significant mortality and morbidity, are not suitable for general application.

Recently there has been introduced a new operation—bilateral internal mammary artery ligation—which in competent hands has no mortality and little or no morbidity. Developed in Italy and first reported 18 years ago, the procedure attracted little attention until the appearance in 1955 of a paper by Battezzati, Tagliaferro and DeMarchi.[2] In this country the subject remained largely unknown until early this year when at the 1957 meeting of the American Association for Thoracic Surgery, Glover of Philadelphia reported his experience with the operation in a series of 77 patients.[3]

The Operation

The procedure is relatively simple and it is done under procaine infiltration. A single incision or two small bilateral incisions are made in the second interspace, extending laterally from the sternum 4 cm. on each side and crossing the midline. The incision is carried to the underlying pectoralis fascia. The fascia is cut. The pectoralis major muscle is split in the direction of its fibers over the second interspace for about 3 cm. The intercostal muscles are cut for 1 to 2 cm. at the sternocostal margin. The internal mammary vessels are then seen imbedded in a small amount of fatty tissue. The arteries are doubly clamped, cut, and ligated. No attempt

is made to approximate the intercostal muscles. The pectoralis fascia is approximated by several fine catgut sutures. The skin is closed with a continuous fine silk suture.

Rationale

The rationale for this procedure is best demonstrated by referring to the anatomic illustration in figure 1. The ligation of the internal

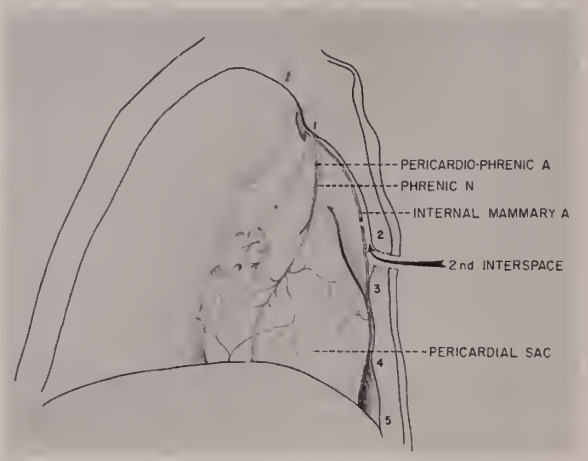


Fig. 1. Common origin of internal mammary artery and pericardio-phrenic artery.

mammary artery distal to the origin of the pericardiophrenic branch, diverts much of the flow to the latter vessel. As Glover points out,[3,4] almost the entire blood supply to the pericardium, which is anatomically continuous with the epicardium, is derived from the pericardiophrenic arteries, and the increased blood flow in this system may be presumed to find its way into the epicardial superficial plexus of vessels overlying the myocardium. Significant anastomoses between the pericardiophrenic vessels and the coronary system have been demonstrated by dye injection techniques.[2,3,5]

Glover's Observations

By October 18, 1957, Glover had performed this operation on 135 patients.[4] In evaluating his results, he divides his cases into three categories:

"The largest series have been those patients, mostly post coronary infarction, who are suffering from demonstrable angina pectoris. By demonstrable, I mean that they have an electrocardiographic pattern of coronary insufficiency.

"Another smaller group have been the somewhat older patients with generalized arteriosclerotic heart disease. The general deterioration has been one of myocardial insufficiency. They are prone to bouts of pulmonary edema, arrhythmias and the like. In some of these, it has not been possible to prove electrocardiographically that they had a specific coronary occlusion in the past, but their problem is predominately coronary insufficiency with a deteriorated myocardium as a result.

"The third group, and a much smaller one, has been again the somewhat older patient with aortic valvular disease, either stenosis or insufficiency or both, but in whom direct aortic valvular surgery is out of the question."

Group 3 he terms the hemodynamic group. Many of them suffer attacks of hemodynamic angina pectoris.

Of the entire series, 100 have been analyzed as follows:

"Eight out of the 9 of the hemodynamic cases (group 3) operated upon have been benefited; 9 out of the 12 of the so-called generalized arteriosclerotic group (group 2), but in whom hypertension seemed to play a part, likewise benefited. The remainder with the typical post infarction angina pectoris cases (group 1), 46 out of the 79 are improved. The overall figure is that 73 per cent of the first 100 have shown improvement from 3 to 9 months, which is the duration of follow up. Fifty of these 73 are very obviously improved. The other 23 are classified as slightly improved."

Experience of Rutledge

In a personal communication Rutledge[6] reports:

"We have done approximately 25 cases to date (October 21, 1957). The immediate results in the hospital are rather spectacular. Practically all of our patients have had complete relief of the anginal pain. They do have some soreness from the incision. However, this improvement has not always been maintained when they go home. I know of at least 3 patients who have had a recurrence of their pain when they have returned to the stress of their every-day living. One of our patients, a man with severe myxedema, has died since surgery. He did, however, have relief of the pain. Three of our patients have been physicians who I feel are in a pretty

good position to estimate the improvement. In general, they have felt that their improvement is about 80 per cent."

Our Own Experience

To the time of writing we have operated upon 20 patients, 13 of whom have had a follow-up of two to five months. In 12 of these the improvement may be described as marked in 6, moderate in 3, slight in 2, and none in 1. The thirteenth patient (case 5), a man of 63 years who showed marked sustained improvement, died unexpectedly in his sleep two months and five days after the operation. Reporting his death the wife writes: "His mental attitude improved a lot as he felt better and was without pain and able to do things he hadn't done for some time. His color improved also. He slept better nights, something he hadn't done for some time before the operation." No autopsy was obtained.

Of the remaining 7 patients who were followed for less than two months, 6 showed moderate to marked immediate improvement. The seventh patient (case 20), a man of 42 years, showed no improvement. He continued to have severe pain and died suddenly one week after the operation. Autopsy revealed two old and one fresh myocardial infarctions.

Electrocardiographic Observations

Glover reports improved electrocardiographic changes in 13 cases (26 per cent). In our series of 20 patients, improvement in electrocardiographic patterns was noted in 3 instances (cases 2, 9, and 11). The significance of such postoperative improvement is difficult to assess. Changes in T waves and ST segment displacement may occur spontaneously, independently of medication or surgical procedures. A much larger experience and longer period of observation will be needed to determine the effect of this operation upon the electrocardiogram.

Summary

Of 20 patients operated upon, 15 showed significant improvement and 3 slight improvement. Two patients have died: one on the eighth postoperative day, the other 66 days after operation. The former had shown no improvement. The latter died in his sleep after marked sustained improvement for more than two months. Overall improvement noted in 75 per cent of the cases corresponds closely to results reported by Glover and by Rutledge.

CASE REPORTS

Case 1. Female, age 46. Severe angina pectoris for one year; attacks on slight exertion. EKG: Evidence of myocardial damage, probably old subepicardial myocardial infarction. Operation July 24, 1957. Attacks subsided immediately. Last seen Nov. 8, 1957. Still free from pain. EKG: No significant change.

Case 2. Male, age 43. Upon returning to work after six days immobilization for a back injury, he developed typical, severe, frequent, anginal attacks which were relieved by nitroglycerine. EKG: Definite though mild changes suggestive of ischemia. Operation Aug. 18, 1957. Complete relief from anginal attacks. Work resumed after one week. Last seen Jan. 4, 1958. Has been continually employed and completely free of pain. EKG: Nov. 9, 1957 shows a disappearance of the ischemic pattern. This was the only case in which a definite reversal to normal of electrocardiographic changes was observed.

Case 3. Male, age 51. Typical angina for two years. EKG: Definite marked ischemic pattern. Operation Aug. 19, 1957. Marked immediate relief. Last seen Oct. 23, 1957. No angina. Went deer hunting without experiencing any distress. EKG: No significant change.

Case 4. Female, age 67. Acute posterior wall myocardial infarction in 1950. Episodes of chest pain and of congestive failure on many occasions since. Anterior wall infarction in 1957. Greatly incapacitated because of angina and congestive failure since. EKG: Evidence of multiple myocardial infarctions (posterior and anterior). Operation Aug. 20, 1957. Moderate relief of anginal episodes; congestive failure now easily controlled. Improvement regarded as slight to moderate. EKG: No significant change.

Case 5. Male, age 63. Hypertensive and coronary heart disease with typical anginal attacks since May 1956. Only partially relieved by medical therapy. In June 1957 developed dyspnea and progressive increase in the frequency and severity of anginal attacks. EKG: Partial left bundle branch block. Operation Aug. 26, 1957. Definite improvement. Dyspnea now readily controlled and anginal attacks largely subsided. While improving steadily, he unexpectedly died in his sleep on Oct. 31, 1957. EKG: No significant change.

Case 6. Male, age 49. Typical angina of effort for two years, partially controlled by medication. EKG: Within normal limits. Operation Aug. 26, 1957. Relief of pain immediate and persistent. Last seen Nov. 23, 1957. "Feels fine." No anginal attacks; has no need for nitroglycerine.

Case 7. Male, age 42. Acute anterior wall infarction in March 1956. Good recovery. When seen Aug. 28, 1957, complained of fatigue only; no pain. EKG: Old healed anterior wall infarction pattern. Operation Aug. 29, 1957. Returned to work in 48 hours. Last seen Oct. 16, 1957. Stated he definitely had more endurance. EKG: Unchanged.

Case 8. Male, age 69. Chronic hypertension (200/120); chronic angina pectoris, moderately well controlled with Rauwiloid and nitroglycerine. Operation Sept. 4, 1957. Marked improvement. Last seen Dec. 28, 1957. Able to walk and climb without pain. Much less fatigue. EKG: No change.

Case 9. Male, age 56. Angina pectoris for two years. Acute anterior wall myocardial infarction January 1956. EKG: Pattern of old healed anterior wall myocardial infarction. Operation Sept. 9, 1957. Slight to moderate improvement. Last seen Dec. 4, 1957. Attacks fewer and of lesser severity. EKG: Some return toward more normal pattern in left precordial leads. TV5, previously deeply inverted now flat, and TV6, previously flat to inverted, now upright; this lead now completely normal.

Case 10. Female, age 55. Typical anginal pains for six years. EKG: Left bundle branch block. Operation Sept. 17, 1957. Last seen Nov. 20, 1957. Slightly improved. Has to take same medication as before. EKG: No change.

Case 11. Male, age 52. Pressure pain in chest radiating to left arm for one year. EKG: Borderline changes, some sagging of ST segments in leads II, V5, V6. Operation Oct. 7, 1957. Last seen Dec. 13, 1957. States that pressure which had been almost constantly present before operation is no longer troubling him. Also dizziness from which he had suffered for a long time is now gone. EKG: Questionable changes toward a more normal pattern.

Case 12. Male, age 41. Posterior wall infarction in 1952. Anginal attacks off and on since. EKG: Evidence of the old posterior wall infarction. Operation Oct. 18, 1957. Last seen Dec. 16, 1957. Stated he felt definite improvement. EKG: No change.

Case 13. Male, age 45. Angina pectoris of one year's duration. EKG: Evidence of coronary insufficiency; probably old antero-septal myocardial infarction. Operation Oct. 29, 1957. Last seen Nov. 27, 1957. Stated he felt much improved; attacks fewer and less severe. EKG: No change.

Case 14. Male, age 47. Anginal attacks for four years. EKG: Within normal limits. Operation Nov. 6, 1957. Last seen Nov. 27, 1957. Subjectively improved.

Case 15. Male, age 43. Angina pectoris for three years. EKG: Antero-lateral wall ischemia. Operation Nov. 8, 1957. Last seen Dec. 16, 1957. Felt he was much better. No pain since operation. EKG: No change.

Case 16. Female, age 71. Under observation for 17 years. Hypertension and coronary heart disease with many episodes of congestive failure. More difficult to control in recent months. Operation Nov. 8, 1957. Last seen Dec. 9, 1957. Definitely improved. Was able to do things she had not been able to accomplish before the operation.

Case 17. Male, age 43. Coronary occlusion three years ago. Angina pectoris since. EKG: Old anterior wall myocardial infarction. Operation Nov. 19, 1957. Last seen Nov. 25, 1957, six days postoperative. Felt better, could walk without pain. EKG: No change.

Case 18. Male, age 66. Coronary occlusion seven years ago. Anginal attacks since. Pain and dyspnea on walking half block. Took 4 to 5 nitroglycerine daily. Symptoms worse the past month. Operation Nov. 18, 1957. Last seen Dec. 18, 1957. Felt better, tolerated more activity without pain.

Case 19. Female, age 72. Angina with exertion, progressively severe since 1940. EKG: Borderline changes. Operation Nov. 21, 1957. Last report Dec. 10, 1957. Felt much improved. Was taking 1 or 2 nitroglycerine per day against 6 to 12 nitroglycerine and several codeine tablets before the operation.

Case 20. Male, age 44. Severe angina after exertion and after eating since 1953. EKG: Taken Dec. 2, 1957 during pain showed antero-lateral myocardial ischemia. Blood cholesterol 456 mg. Operation Dec. 3, 1957. Severe angina persisted. Died suddenly one week after the operation. Autopsy revealed two old and one fresh myocardial infarctions.•

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Pulmonary Resection in Recurrent Spontaneous Pneumothorax

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AND
E. H. Morgan, M.D.
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While formerly considered an indication of more serious underlying pulmonary disease, spontaneous pneumothorax, as emphasized by Kjaergaard in 1932,[1] is more usually found in otherwise healthy young adults. The incidence of subsequent tuberculosis, for example, is no greater than that in the general population[2] and if present, is usually recognized at the time of collapse by fever, pleural fluid, and parenchymal changes in the lung.[3] Collapse in spontaneous pneumothorax has been variously described as occurring secondary to the air leak caused by a rupture of a subpleural bleb, emphysematous bulla, or a congenital cyst. Treatment of spontaneous pneumothorax has varied considerably to include simple bed rest, needle aspiration, thoracotomy tube drainage, and surgical exploration. Prevention of recurrent spontaneous pneumothorax, which has been estimated to occur in approximately one of every four patients who have experienced an initial collapse, has been attempted by inducing an obliterative irritative pleuritis or by excision of abnormal pulmonary tissue at thoracotomy. Contrary to common misconception the pathologic lesion in recurrent spontaneous pneumothorax is usually localized in a given segment or, at the most, two segments.

This report concerns an experience with the management of recurrent spontaneous pneumothorax by pulmonary resection. The cases represent a series from the Mason Clinic and those resected by one of us (G.H.L.) elsewhere.*

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Selection of Patients

Spontaneous pneumothorax usually presents as a sudden catastrophic event to the patient, marked by extreme thoracic pain and dyspnea. Physical examination reveals hyperresonance and absent or diminished breath sounds on the affected side. X-ray evidence of absent lung markings on the affected side may be confused occasionally with a large cyst or pneumatocoele, but can be differentiated by injection of warm lipiodol into the hemithorax through a No. 22 needle. This will demonstrate lung markings within a cyst itself, and their absence in pneumothorax.

As the pleural space is normally only a potential one, the basic consideration of therapy should be removal of air from the pleural space with resultant re-expansion of the underlying lung. When collapse of the lung is significant, that is when the collapse amounts to more than 30 per cent of the normal lung volume as visualized in the thoracic roentgenogram, a program of simple bed rest and spontaneous absorption of air without its definitive removal is often associated with chronicity and significant morbidity.[4] As the air leak from the lung is usually through a rent in the pleural surface associated with surrounding pleuritis and fibrosis, the defect tends to be held open by this scarred pleura and will heal only when sealed by adherence of the visceral to the parietal pleura. This seal, in truth, acts as a blow-out patch. Re-expansion of the lung provides the necessary pleural approximation and may be obtained either by needle aspiration of air or by thoracotomy tube drainage connected to a water seal bottle

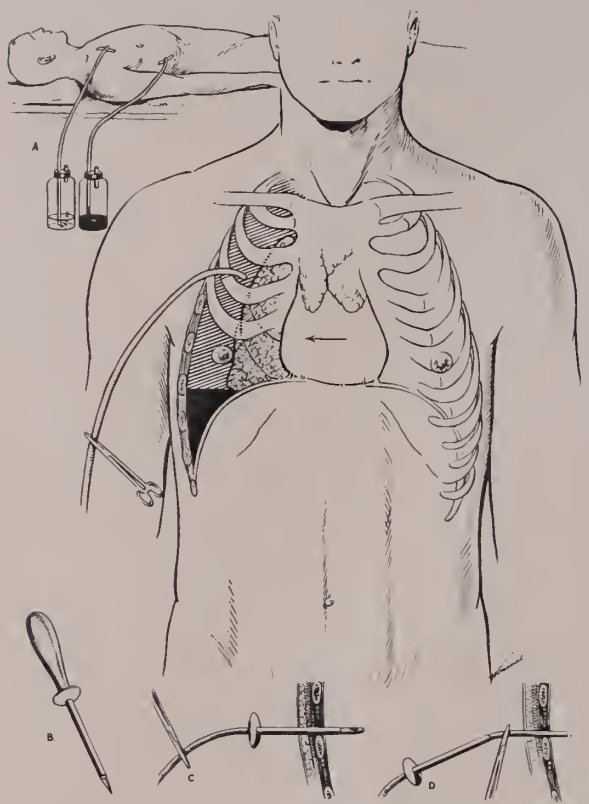


Fig. 1. Thoractomy tube drainage showing the anterior tube inserted for removal of air. Insert A illustrates the tube connected to water-seal drainage and an associated lateral tube used for removal of fluid or blood if present. Inserts B-D demonstrate the method of introducing the tubes by trochar under local anesthesia. The tube, clamped proximally, is inserted through the trochar in insert C. The trochar is then removed, clamping the tube, until connected to water-seal.

(Fig. 1). The latter provides an effective continuous means of re-expansion at a physiologically favorable negative pressure, avoiding thereby too rapid and brief re-expansion by needle aspiration. Either form of air removal may become emergent when mediastinal shift develops secondary to undue air accumulation and resultant tension in the pleural space, or where pre-existing pulmonary reserve is further impaired by collapse of the lung. Should the air leak be large or the patient have a diminished respiratory excursion, evacuation of air through thoracotomy tube drainage should be supplemented by suction at physiologic negative pressure in order to increase the volume of air removed. When suction is used, it is our opinion that an additional thoracotomy tube should be inserted for use with the suction apparatus. The reason for this point of view lies in a simple physiologic fact. Maximal expiratory flow rate in normal subjects can be as high as 400 L. a minute, as during a cough. Obviously a flow rate of such magnitude is of very brief duration. Nevertheless, if such a rate of flow were directed through a rent in the lung into the pleural space instead of through the trachea, removal of air from the pleural cavity would require a pump of far greater capacity than the usual suction apparatus affords. Therefore it is our belief that drainage of the pleural space should not be limited by a pump of relatively low capacity. The inherent safety of a simple blow-off tube under a water seal should always be maintained. A large air leak may require emergent thoracotomy should suction through thoracotomy tubes prove incapable of re-expanding the lung.

If re-expansion of the lung has been completed, the thoracotomy tube may be removed after pleural symphysis has sealed the air leak, usually in 12 hours after visible fluctuation in the chest bottle has ceased. The patient may return to gainful if not excessive activity within several days after his collapse.

Recurrent pneumothorax, should it develop, requires definitive measures to prevent its repetition. The production of an irritative pleuritis by means of silver nitrate,[5] autogenous blood,[6] mechanical irritation,[7] talc,[8] or other agents introduced into the pleural space either through a thoracoscope or at open thoracotomy, has proved effective, but is unfortunately associated with some untoward reactions,[9] particularly fever and intrapleural infection. Diffuse bullous disease not lending itself to resectional surgery would appear to be best suited to this form of prevention.

Thoracotomy and resection are, therefore, reserved for: (1) those patients suspected of having localized disease as the source of recurrent air leak and, (2) those patients who do not re-expand following thoracotomy tube drainage during their initial or recurrent collapse. Measurement of pleural pressures following removal of air differentiates between persistent air leak or fibrous encapsulation of the lung as the cause of this failure to re-expand.

Pathologic Findings

The lesions resected have been located in the apical or apical-posterior segments of the upper lobes in all cases in this series save in one case of congenital cystic disease limited to the right middle lobe (Fig. 2) and one case where cystic disease was located in the superior dorsal



Fig. 2. A large congenital cyst of the right middle lobe which has produced recurrent spontaneous pneumothorax in a 42 year old male. He has had no recurrence five years since right middle lobectomy.

segment of the lower lobe as well as the apical segment of the upper lobe. These lesions have been well localized and have not represented diffuse involvement of the lung. Classically such lesions are described as being subpleural blebs, bullous cysts, or congenital cysts. It was at first somewhat disappointing to receive pathologic diagnosis which did not follow this classification. However, the chronic pleuritis, fibrosis, and atelectasis usually described in resected tissue contributes significant information, for it is this scarring and fibrosis which tends to perpetuate the air leak (Figs. 3, 4). Once a leak has occurred from the cystic tissue through fibrotic pleura, collapse of the cyst and obliteration of the leak are prevented by the scarred wall which does not collapse. Decortication of the remaining non-cystic but captive lung to insure adequate re-expansion may prove necessary. The fibrous "peel" that forms on the pleura following prolonged collapse of the lung necessarily prevents re-expansion by less definitive forms of therapy than decortication.

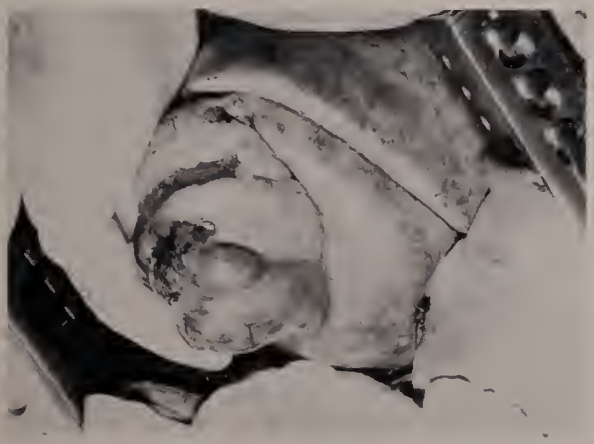


Fig. 3. Apex of the left upper lobe showing scarring and fibrosis over the apical subpleural blebs. This patient's x-rays are presented in figure 5.



Fig. 4. Apical resected segment right upper lobe showing solitary subpleural bleb with overlying fibrosis.

Clinical Considerations

Of the 14 cases in this series, 12 occurred in males. From one to as many as 45 previous episodes of collapse occurred in these cases (Fig. 5). Of these resections, segmentectomy was performed 12 times, lobectomy once, and wedge resection on three occasions. Three resections required concomitant decortication and two patients had staged, bilateral resection. Iodized or plain talc poudrage of the lung was combined with resection in five patients. The average hospital stay following operation was 9.6 days and the longest was 14 days. There was no mortality and no significant postoperative complications in the series. The patients were followed from one to four years after surgery.

To our knowledge, recurrent spontaneous pneumothorax occurred in but one of the 14 patients previously subjected to thoracotomy. It is our opinion that recurrence after definitive surgical therapy is extremely rare; hence, in the case of the patient so affected is presented.

CASE REPORT

A 35 year old housewife was first seen in 1952 with a small right spontaneous pneumothorax which re-ex-



Fig. 5. Left: 36 year old painter who had undergone resection of apical subpleural bleb on the left following 45 recurrences of spontaneous pneumothorax. This x-ray shows his tenth recurrence on the right. Right: Following resection of a similar lesion on the right side, he has been bilaterally free of recurrence for four years.

panded spontaneously. Six months later the collapse recurred and at thoractomy, cystic areas were resected from the apex of the right upper lobe and the superior dorsal segment of the right lower lobe. The pleural surfaces were dusted with 10 per cent iodized talc. Three and one-half years later she experienced severe thoracic pain and limited collapse of the right lower lobe. Forty-seven days later, complete spontaneous re-expansion of the lung was documented by x-ray. She has remained well since that time.

Discussion

Thoracotomy and resection of the source of air leak in chronic recurrent spontaneous pneumothorax has received increasing enthusiasm in recent years.[9-13] While simultaneous bilateral thoracotomy resection has been advocated,[14] we would agree with Tuttle that such an approach is over-aggressive and not indicated in face of the low incidence of bilateral collapse.[15] Likewise, concomitant pleurectomy is unnecessary and may be hazardous in fact of the unavoidable bleeding which ensues. Morbidity, mortality, and hospital stay actually have been less with surgery than in the allegedly more conservative forms of therapy. This report reinforces the concept of resection and demonstrates its effectiveness as a means of preventing recurrence. Tissue studies have demonstrated the fibrotic pleural scarring which perpetuates the air leak once it has occurred.

Summary

Resection of etiologic lesions in recurrent spontaneous pneumothorax provides a safe and practical method of preventing collapse of the lung. Experience in 14 cases substantiates the validity of this concept. One case of limited recurrence followed resection. •

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Tularemia

M. A. Holmes, D.V.M.
AND
S. B. Osgood, M.D.
PORTLAND, OREGON

Heavy Microtus (field mouse) infestation in five Oregon counties and a pronounced cyclic peak in the majority of other counties has caused considerable concern over possible hazards to human health.

Epidemiologic and ecologic investigations in the United States and in Europe during similar infestations have revealed that epizootics nearly always follow such population increases. Subsequent human illness frequently reaches epidemic proportions.

Preliminary investigations by staff members of the Oregon State Board of Health and the United States Public Health Service have shown that 34 per cent of mice trapped alive in Klamath County died later of tularemia. In five areas where concentrated surveys were made, tularemia deaths in mice varied from 22 to 34 per cent. Water samples taken from streams and shallow surface wells have also yielded tularemia organism. Additional laboratory examinations have revealed two isolations of bubonic plague and a yet unidentifiable virus.

It is difficult to evaluate the potential public health hazards that may be involved; therefore it is necessary to rely upon documented reports of what has occurred in previous outbreaks.

Two tularemia epidemics in man, each involving 200 cases, have been described from Australia following outbreaks in field mice.[1] Numerous reports from USSR describe types of human tularemia from murine sources: 1) Occupational bubonic forms in early spring; 2) massive outbreaks of anginal type from water-borne tularemia; and 3) typhoidal, pneumonic, and influenzal types from inhalation during threshing and cultivation of fields where mice died, as well as from mouse feces in dust and grain.[2]

In the United States, tularemia epizootics among beaver and muskrat have infected streams in Montana, Idaho, and Wyoming, contaminating areas of a single river up to 35 miles and for 16 months duration.[3,4]

Experimental studies as to the vialibity of the organism outside the animal body have shown that it can survive for long periods of time in mud, rodent urine, animal tissues, rodent hair, and grain, especially under low temperatures. This indicates that the organism can survive the winter months, and serve to infect both animals and man after thawing in the spring.[5-7] With various ecto-parasites serving as vectors in transmitting the disease, the public health potential is increased.

The Merck Manual identifies the disease as "an acute infectious disease, often bizarre in its manifestations, but usually characterized by a primary local ulcerative lesion, profound systemic symptoms, a typhoid-like state, bacteremia, and not infrequently atypical pneumonia."[8]

Infection is incurred most frequently through handling animals suffering from tularemia. The organism is thought to be capable of penetrating unbroken skin but it may enter the body through the conjunctivae, as a result of insect bites, after eating inadequately cooked meat or as a result of drinking contaminated water. There has been no report of man-to-man transmission.

Superficial lesions occur in approximately 10 per cent of the cases and may be noticed on the fingers, eyes, or mouth. They appear as focal areas of necrosis one to ten days after contact. This is accompanied by sudden headaches, chills, nausea, vomiting, and temperatures of 103 to 104 F. The external lesion first appears as a papule and becomes pustular later. This ulcerates and is followed by enlarged regional lymph

nodes which suppurate and drain. Lymphadenitis occurs in more than 90 per cent of the cases. The spleen, liver, lungs, lymph nodes, bone marrow, and possibly other tissues will have scattered necrotic foci as the result of transitory bacteremia. Secondary invasion occurs with bacteria being dispersed throughout the systemic and pulmonary circulation, forming miliary and submiliary foci of necrosis. Bacteremia disappears after formation of antibodies. The pneumonic form closely resembles tuberculosis and is characterized by lobular bronchopneumonia with necrotizing infiltration of the parenchyma. Gangrene, cavitation, and abcess formation may follow.

Immunity develops after an attack of tularemia. Induced immunity, by use of a phenolized or acetone extracted vaccine, modifies clinical symptoms, or provides a useful degree of protection according to Foshay and his group.

Diagnosis of tularemia may be made by recovery of the organism from the ulcer, the enlarged lymph nodes, or from the blood. Agglutination tests may become positive after the tenth day of illness and usually never before the eighth day. Blood samples for the agglutination (Widal) test should consist of two or more paired 5 to 8 cc. samples of whole blood collected two to four weeks apart. The first specimen should be collected as soon as the disease is suspected and subsequent specimens at intervals of two to four weeks in order to demonstrate a diagnostic rise in agglutination titer. History of contact, with ill rodents, plus sudden onset of typical ulcerative lesions, are significant in making a diagnosis.

Treatment is best accomplished by the use of 0.5 Gm. streptomycin or dihydrostreptomycin intramuscularly every 12 hours for 72 hours until the temperature becomes normal; thereafter 0.5 daily for 5 days. Administration of streptomycin or dihydrostreptomycin is followed by relapses much less frequently than when other antibiotics, such as the tetracyclines, are used.•

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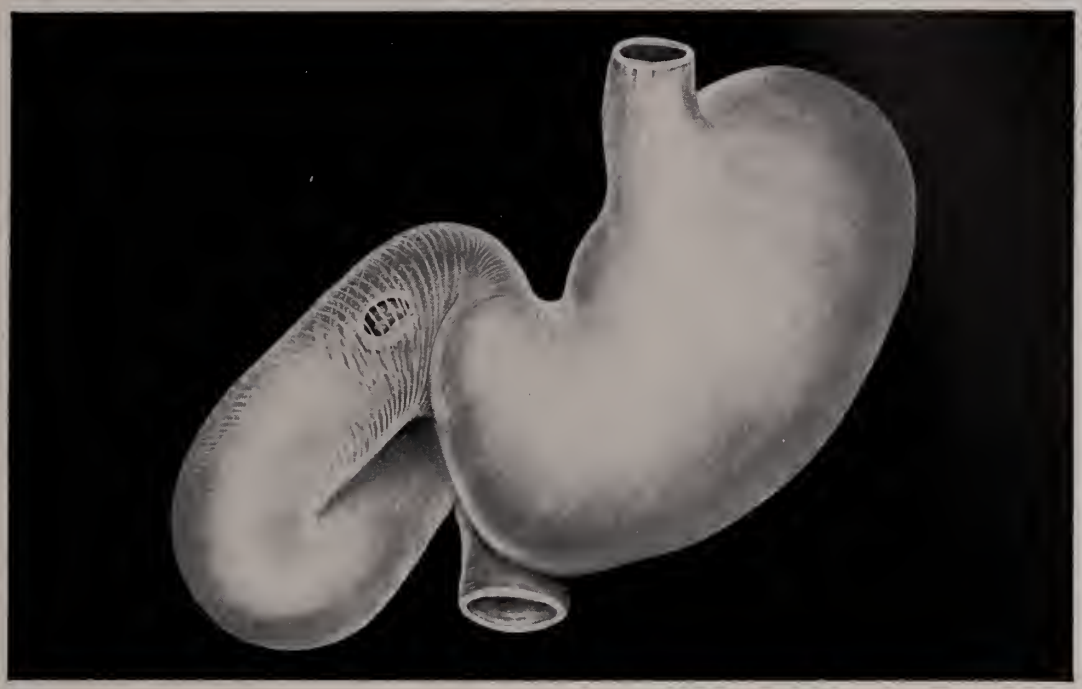
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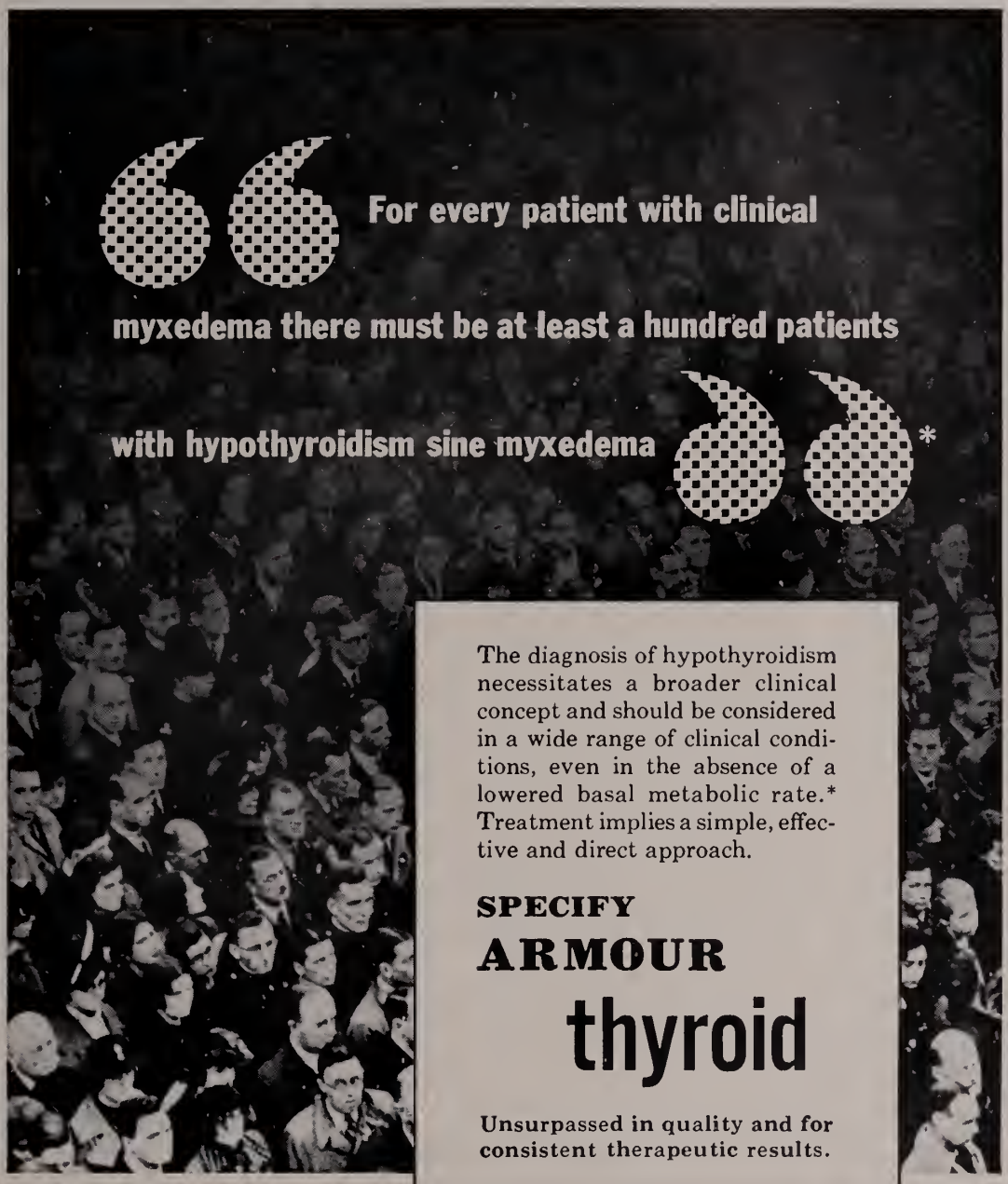
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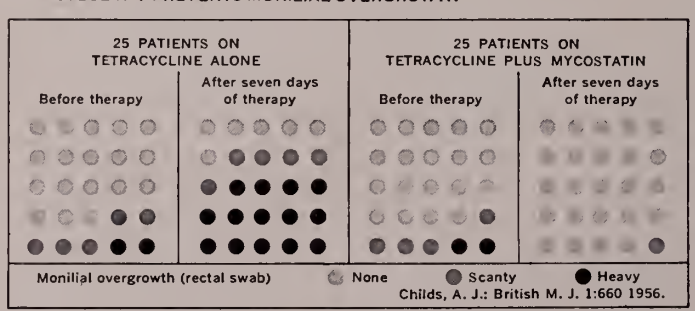
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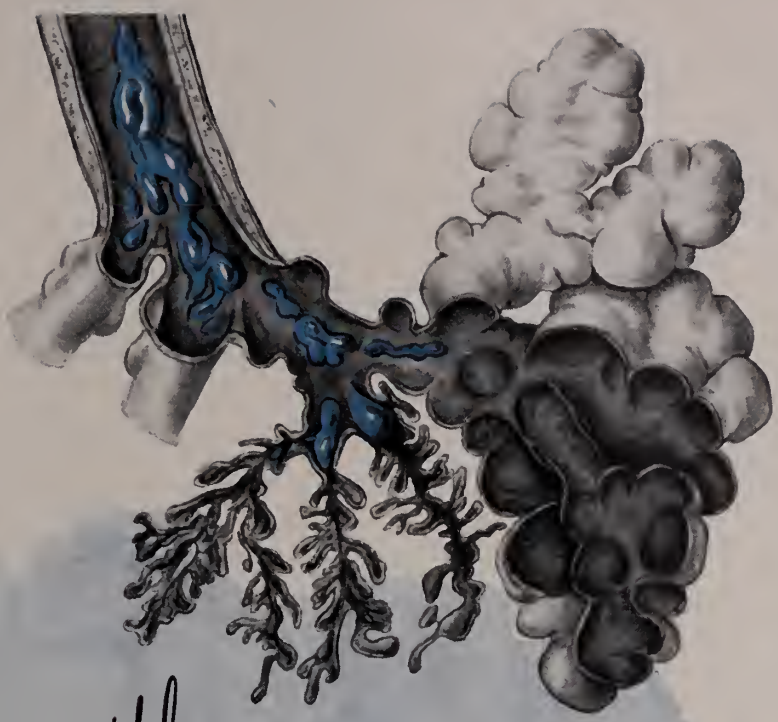
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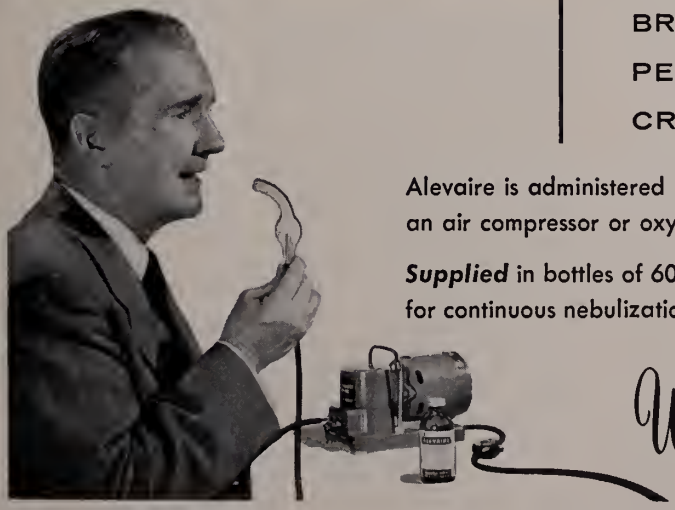
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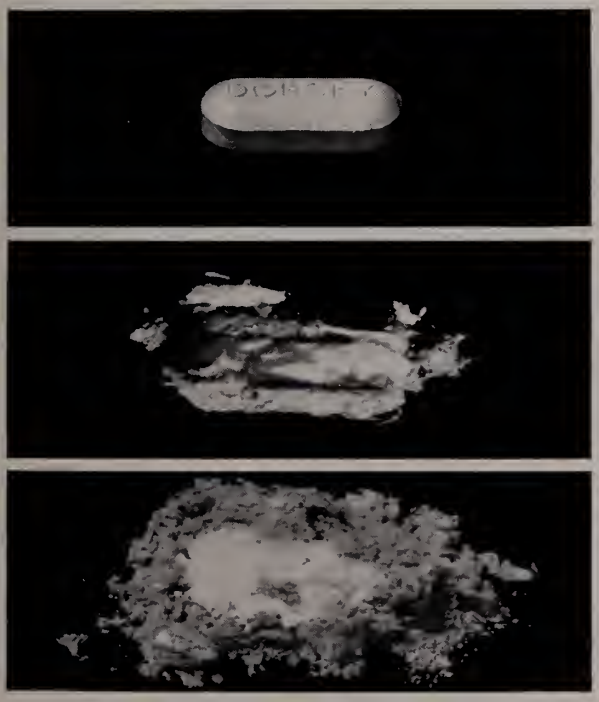


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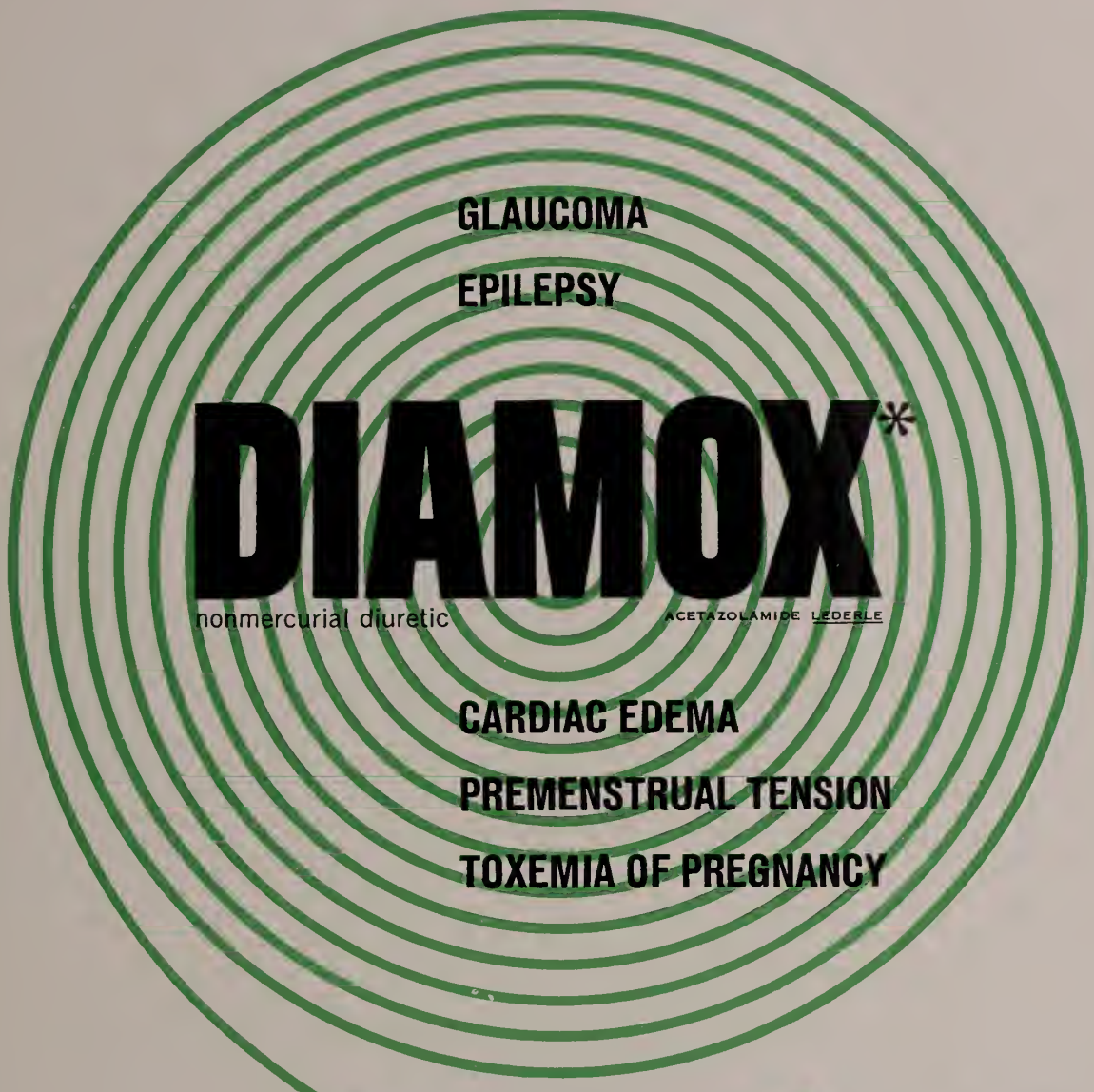
"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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DIAMOX is well-suited to long-term therapy. Low toxicity, freedom from renal and gastrointestinal irritation, ease of administration make its use simple and singularly free of complications. Excretion of the drug by the kidney is complete within 24 hours, with no cumulative effects.[1]

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Supplied: Scored Tablets of 250 mg.; Syrup containing 250 mg. per 5 cc. teaspoonful; Vials of 500 mg. for parenteral use.

1. Goodman, L. S. and Gilman, A.: The Pharmacological Basis of Therapeutics. Ed. 2. The Macmillan Co., New York, 1955, p. 856.

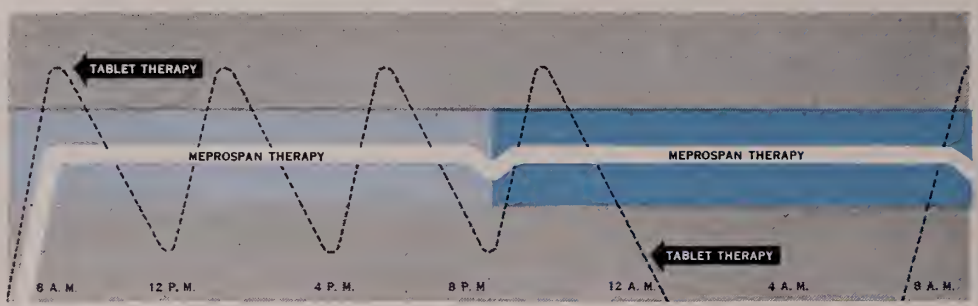
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Oregon

OREGON STATE MEDICAL SOCIETY
1115 S. W. Taylor Street
Portland 5, Oregon

ANNUAL MEETING
September 3-5, 1958
Portland

President, Vern W. Miller, M.D., Salem
Secretary-Treasurer, Max H. Parrott, M.D., Portland
Executive Secretary, Mr. Rascae Miller, Portland

UOMS Alum Meeting April 16-18 To Feature Sommer Memorial Lectures

Physicians from throughout the West who graduated from the University of Oregon Medical School will return to the campus April 16-18 to participate in the 43rd annual meeting of the Alumni Association.



FRANK R. MENNE, M.D.

The three-day meeting will again feature the popular Sommer Memorial Lecture Series, many other scientific papers and a number of class reunions. Scientific programs will be held in the school auditorium.

Morton J. Goodman, President of the Association, has named F. A. Short, vice-president, as program chairman. Dr. Short is arranging the scientific sessions in cooperation with Frank R. Menne, chairman of the Sommer Memorial Lecture Committee.

Appearing as Sommer Lecturers are Lowell A. Rantz, professor of medicine at Stanford University; Mr. John Stallworthy of Oxford, England, and Allen Moritz, professor of pathology at Western Reserve.

The Oregon Academy of General Practice will provide Category No. 1 postgraduate credit for the meeting based on the number of hours of formal lectures.

Karl H. Martzoff Lectures in Chicago

The Chicago Medical Society has given recognition to one of Oregon's well-known surgeons. It invited Karl H. Martzloff of Portland to be a guest lecturer at its 1958 annual clinical conference held March 4, 5, 6 and 7, 1958, in Chicago.

Title of Dr. Martzloff's lecture was Early Recognition of Cervical Cancer in which he gave an evaluation of available techniques.

This is the second time in recent years that Dr. Martzloff has appeared as a guest lecturer in Chicago. In 1951 he gave the Charles Sumner Bacon Lecture for 1951-1952 at the University of Illinois School of Medicine. The title of Dr. Martzloff's lecture on that occasion was Analysis of Factors Influencing the Use of Surgery in Cancer of the Cervix Uteri.

Three Statewide Meetings Scheduled For April 19 in Portland

Officers of Oregon State Medical Society took advantage of an open date on Saturday, April 19, after the Council voted to dispense with the 1958 Mid-Year Meeting of the House of Delegates, to schedule three important statewide meetings for that day.

The all-day series of meetings will commence in the morning when the Third New Member Institute convenes in the Florentine Room at the Columbia Athletic Club in Portland. Attendance at a New Member Institute is now required in the Society's By-Laws of all new members during the first three years of practice in Oregon.

The afternoon will be devoted to the Third Annual Component Society Officers Conference combined with a meeting of the "Key Men" appointed by the President to assist the Committee on Public Policy in matters relating to legislation.

In the evening, the Council will hold its regular monthly meeting. All visiting county officers and new members are invited to attend.

The New Member Institute is under direction of the Committee on Public Relations with Lee Thompson of Beaverton serving as chairman. According to Dr. Thompson the spring session of the Institute will emphasize the practical aspects of medical practice along with a review of the principles and objectives of medical organization.

The Mid-Year Meeting, held regularly during recent years, is a special session of the House and is called at the discretion of the Council. A majority of the Council agreed that the meeting should not be scheduled this year in view of a rather light business agenda and the fact that the 1958 Annual Session has been advanced more than one full month to the first week in September.

The Officers Conference was inaugurated in 1956 when E. G. Chuinard served as president. The first session was held in Portland. In 1957 the Lane County Medical Society was host at a very successful all-day conference in Eugene. Business meetings were held in the conference room at Sacred Heart Hospital. In the evening, visiting officers and their wives enjoyed dinner and dancing at the Eugene Country Club.

The Officers Conference is designed to provide presidents and secretaries of component societies and all interested members with an up-to-the-minute report of Society affairs.

Council Supports Physician Case-Cost Index Program

For several years, local supervisory committees of Oregon Physicians' Service have scrutinized the cost of medical care rendered to OPS subscribers at the community level.

Information is supplied to the supervisory committees, physicians elected or appointed by the component medical society, through a complex tabulating system at OPS headquarters which is popularly known as the "physician cost index."

Physicians whose case-cost averages are at least 25 per cent above other practitioners in their type of practice in the community are reported to the supervisory committee. Those physicians are urged to cooperate with the supervisory committee during a six month period by keeping close account of their case costs.

In a few instances, supervisory committees have imposed penalties against physicians who repeatedly appeared on the case-cost studies.

At its March meeting, the Council of the Oregon State Medical Society took a firm stand in support of the physician case-cost index program. The Council agreed that medical societies have a responsibility for policing their own members in-so-far as the costs of medical care are concerned. This action resulted from a resolution presented by the Multnomah County Medical Society in January which asked the State Society to conduct a full investigation of the case-cost averaging system as applied by OPS with particular attention as to whether the system leads to the best medical care. The resolution was referred to the Society's Committee on Patient-Physician Relations of which Edward H. McLean of Oregon City is chairman.

The following report of that Committee was approved by the Council on March 1:

> Your Committee was asked to consider the following resolution submitted to the Council by the Multnomah County Medical Society and referred to this Committee by action of the Council at its meeting in January, 1958:
>
> > That the Oregon State Medical Society establish a special committee with instructions to conduct a full investigation of the "case-cost averaging system" now applied by Oregon Physicians' Service with particular consideration as to whether the system of preparing case-cost averages leads to the best medical care and report its findings and recommendations to the Council of the Oregon State Medical Society.

The Committee convened twice to consider this matter. At the first meeting on Saturday, February 1, 1958, the Committee heard a detailed report from Mr. Thorne H. Hammond, Assistant General Manager of Oregon Physicians' Service, regarding the history, purpose and actual operations of the Physicians' Index and Case-Cost Averaging System.

The second meeting of the Committee, held on Saturday, March 1, 1958, was devoted to further discussion of the material presented at the first meeting and a final analysis of Committee opinion as follows:

The Committee on Patient-Physician Relations is of the opinion that medical societies have a responsibility for policing their members in-so-far as the costs of medical care are concerned.

It is our opinion that the Physicians' Cost Index is a satisfactory method to accomplish this purpose in respect to the members of Oregon Physicians' Service.

We further believe that the Index has been properly placed in the hands of the profession to be utilized by the seventeen local supervisory committees appointed by component societies of the Oregon State Medical Society.

After two lengthy meetings and extensive study we conclude that the Physicians' Cost Index is not detrimental to the best type of medical practice and, as a matter of fact, has proved beneficial to the quality of medical care in many instances. Furthermore, we do not feel that the Index system is unfair to the individual practitioner.

Respectfully submitted,
COMMITTEE ON PATIENT-PHYSICIAN RELATIONS
Edward H. McLean, M.D., Chairman
Ralph Thompson, M.D.
J. P. Brennan, M.D.
Matthew McKirdie, M.D.
Robert W. Patton, M.D.
Edward A. Lebold, M.D.

Ivan M. Woolley Elected Vice-President of American College of Radiology

At its 1958 annual meeting and convocation held in Chicago, February 7, 1958, the American College of Radiology elected Ivan M. Woolley of Portland vice-president for the coming year. This is the first time such an honor has been bestowed upon a radiologist in the Pacific Northwest. Previously, Dr. Woolley had served as the College's Oregon Councilor.

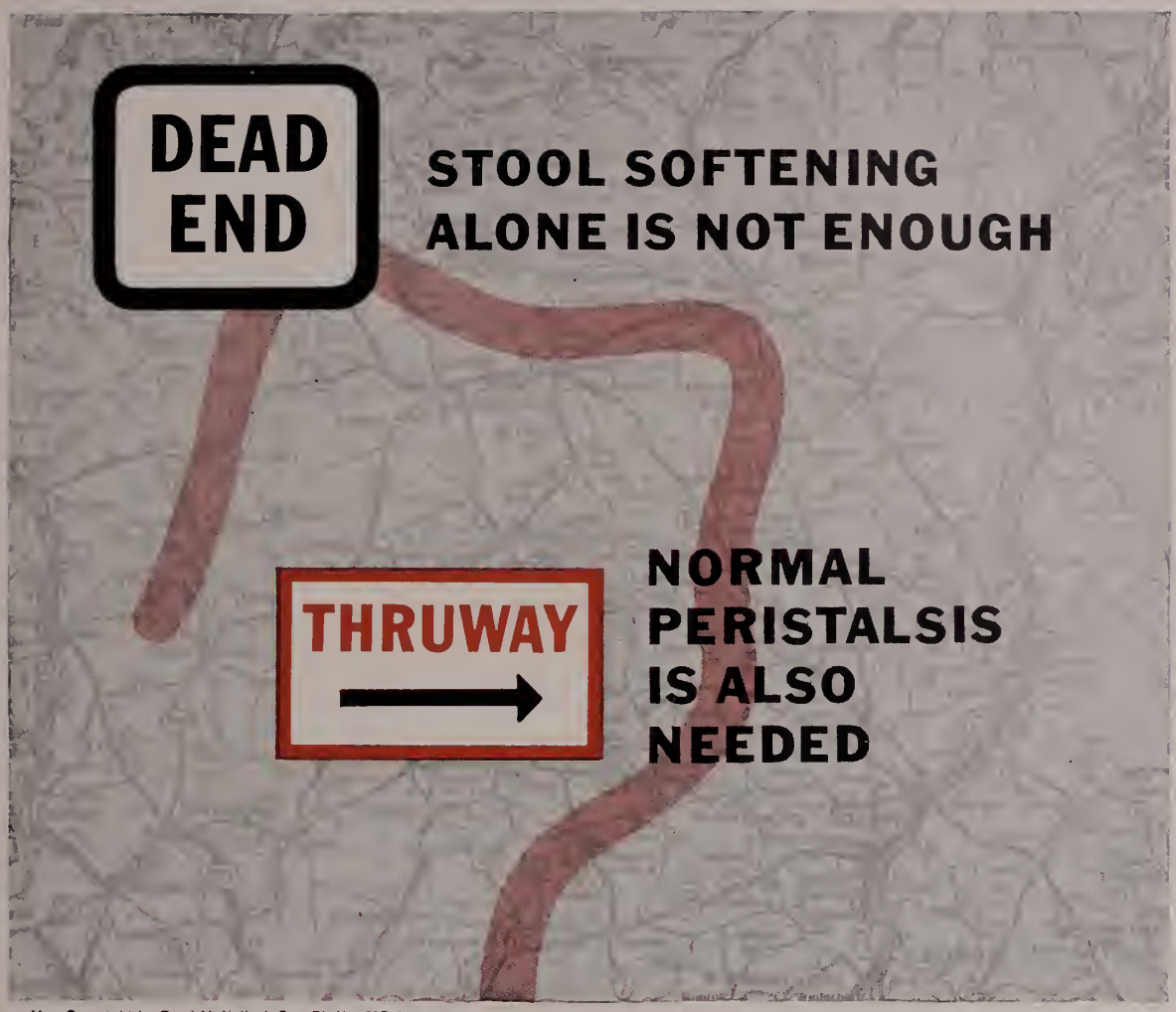
In addition to his responsibilities with the College, Dr. Woolley has been active in the affairs of his specialty in the Northwest for many years. He is a charter member and was the first president of the Oregon Radiological Society and likewise a founding member of the Northwest Radiological Society of which he was the second president. He has also held the offices of vice-president and state counsellor of the Radiological Society of North America.

Active in medical affairs from the start of his professional career, Dr. Woolley was secretary of the Multnomah County Medical Society in 1932 and 1933 and served as its vice-president in 1952 and as president in 1954. He has also served on many important committees of Multnomah County Medical Society and Oregon State Medical Society.

Dr. Woolley is a past-president of the Medical Staff of the Emmanuel Hospital and of the Alumni Association of the University of Oregon Medical School.

State Academy of GP Meeting Date Change

Oregon Academy of General Practice has changed the meeting plate and date for its 1958 Annual Session to the following: Columbia Athletic Club, Portland, Oregon, October 16 and 17.



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Menadione USP	0.134 mg.
Thiamine Mononitrate	1 mg.
Riboflavin	1 mg.
Pyridoxine Hydrochloride	0.67 mg
Ascorbic Acid	6.67 mg.
Niacinamide	10 mg.
d-Panthenol	1.33 mg.
Folic Acid USP	0.1 mg.
A fermentation extract equivalent in microbiological potency to vitamin B-12	0.33 mcg.
Biotin	3.3 mcg.
Inositol	10.0 mg.
dl-Methionine	10.0 mg.
Choline Bitartrate	21.0 mg.
Yeast Extract, Type No. 3 (Standard Brands)	64.8 mg.
Mixed Tocopherols (Equivalent to 1:53 I. U. Vitamin E)	3.34 mg.

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"Improved Fertility and Prevention of Abortion." J.A.M.A. 3.13.1954. Reprints on request.

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Funds Contributed for Distributing Health Careers Guide Books to Students

A program to provide Oregon high schools with classroom supplies of an excellent Health Careers Guidebook cleared two major financial hurdles early in March when the Oregon State Medical Society and the Multnomah County Medical Society contributed a total of $300 to the project goal of $1,500. Other funds already had been received from the Woman's Auxiliary.

The Health Careers Guidebook for Oregon represents the results of an 18-month survey of a long list of health careers which was conducted through the Health Careers Horizons Project of the Portland Community Council. One of the chief researchers was Georgia Lee (Mrs. J. Robert Lee), a representative of the Woman's Auxiliary.

Although guidebooks for students interested in following health careers have been published and distributed to high schools nationally, sponsors believe this is the first attempt to compile pertinent facts about health careers in a single state. The booklet will include such information as educational requirements, job placement opportunities for each classification and chances for advancement in any particular health field in Oregon.

When published, a limited number of the booklets will be sent to secondary schools for classroom use to supplement the national guidebook which is available in each school library.

Health Careers volunteers are currently cooperating with University of Oregon Medical School and Multnomah County Medical Society in the promotion of a Health Careers Day at the school on April 10. Interested students will be invited to visit the campus where they will be taken on conducted tours for a personal view of medical careers in action.

Tours are planned for students interested in medicine, dentistry, medical psychology, hospital administration, technology, social work, x-ray, hygiene, occupational therapy, dietetics, medical photography and many other fields.

State Medical Civil Defense Chairmen To Meet in Portland September 2

John M. Hoffman, McMinnville, chairman of the Oregon State Medical Society's Committee on Emergency Medical Service, revealed plans at the March 1 meeting of the Council for a statewide conference of medical civil defense chairmen to be held in Portland on Tuesday, September 2.

Dr. Hoffman, reporting on a meeting with state civil defense officials, said plans are under way to keynote the conference with the appearance of a nationally prominent authority on medical disaster.

The president of each component medical society will be invited to designate a medical disaster chairman for each county within the Society's jurisdiction. Disaster chairmen will be requested to participate in the conference on the evening before the first day of the 1958 Annual Session.

Dr. Hoffman, who was authorized to attend the forthcoming national civil defense conference, recommended that new efforts be made to encourage all physicians to obtain a civil defense identification card. He suggested that photos and fingerprints for the cards could be secured at medical society meetings.

The Chairman further reported that 200-bed emergency hospitals have now been located in McMinnville, Salem, Molalla and Corvallis. At least seven additional field hospitals will be purchased for location in St. Helens, Camp White, Hood River, Ashland, Eugene, Salem and Medford.

Not all disaster planning is confined to problems with equipment and medical supplies. Quoting a letter from Donald Bauer in Coos Bay, Chairman Hoffman related that thousands of curious citizens jammed a state highway in that area recently for a better view of an Army dredge that had sunk in the harbor.

State police declared they were prohibited by state law from stopping or diverting traffic on the state highway even though the transportation situation was critical. Fortunately, in the Coos Bay incident, injured seamen were transported to the hospital minutes before the highway was snarled with automobiles.

The Council referred the highway question to the Committee on Public Policy.

Salem Surgical Society Meets

Scientific papers on Some Present Concepts in Hand Surgery and Tumors of the Neck were presented at a recent meeting of the Salem Surgical Society at Salem General Hospital.

Speakers were R. P. Embick, who talked on hand surgery, and D. Q. Thompson, who spoke on tumors of the neck. Carl Holm led the discussion following the paper on hand surgery.

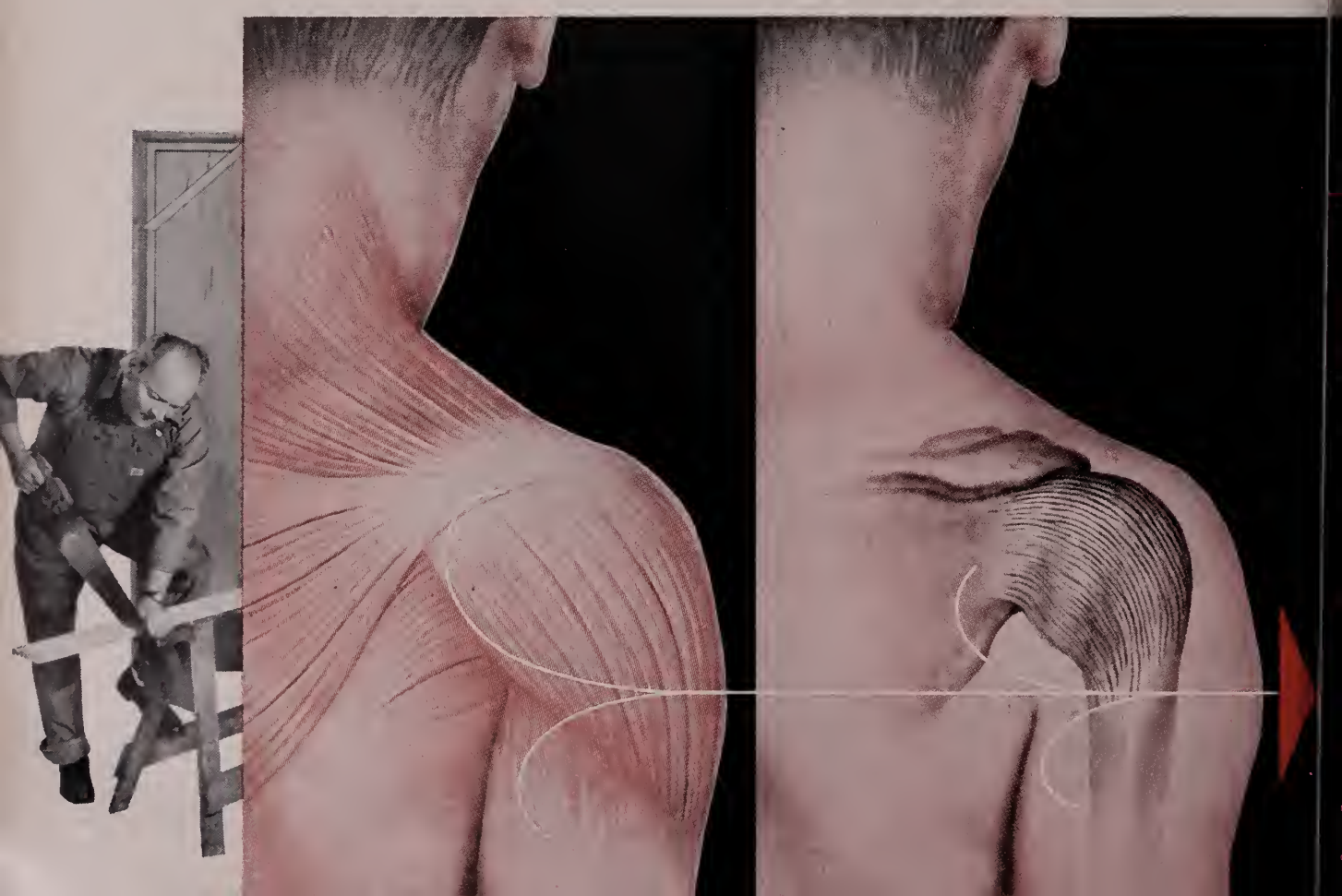
The Salem Surgical Society was organized by a group of Salem surgeons in 1954. Meetings are held four times each year and are open to all interested members of the medical profession.

President for 1958 is E. S. Vanderhoof, and E. Hume Downs is secretary.

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MEPROLONE is the only anti-rheumatic-antiarthritic designed to relieve simultaneously (a) muscle spasm (b) joint-muscle inflammation (c) physical distress . . . and may thereby help prevent deformity and disability in more arthritic patients to a greater degree than ever before.

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MEPROLONE-1—supplies 1.0 mg. prednisolone in the same formula as MEPROLONE-2 (bottles of 100).

1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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relieves both muscle spasm and joint inflammation

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President's Page

The component or county medical society is the most important unit of medical organization. It is on the local level where the authority is retained and where policy is formulated. The prominence of the county society perhaps is best indicated on realization of the fact that it is here, in your own communities, where a physician is accepted into medical organization. Approval for membership in a component society automatically qualifies the physician for membership in his state society and the American Medical Association. This month we give recognition to ten of our colleagues who have accepted responsibility as presidents of their respective societies. These men, who have gained the respect of their fellow practitioners, represent another vital segment of the dedicated members of our profession who give strength and meaning to the principles of the Oregon State Medical Society.

Vern H. Miller

President



Flora Biswell, M.D.
President, 1958
Baker County
Medical Society



Harry E. Mackey, M.D.
President, 1958
Central Oregon
Medical Society



Herbert E. Mason, M.D.
President, 1958
Washington County
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C. C. Peterson, M.D.
President, 1958
Yamhill County
Medical Society



W. G. Holford, Jr., M.D.
President, 1958
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President, 1958
Clackamas County
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Harold P. O'Neill, M.D.
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Linn County
Medical Society



W. T. Edmundson, M.D.
President, 1958
Mid-Columbia
Medical Society



Werner E. Zeller, M.D.
President, 1958
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Medical Society



Howard Kaliher, M.D.
President, 1958
Tillamook County
Medical Society

Washington

WASHINGTON STATE MEDICAL ASSOCIATION
1309 Seventh Avenue
Seattle 1, Washington

ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane Secretary, F. A. Tucker, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

Report from Medical Disciplinary Board

JAMES H. BERGE, M.D.*
SEATTLE, WASHINGTON

The Washington Medical Disciplinary Act was sponsored by the doctors of the state because they considered the health and well-being of the people of the state to be of paramount importance. They recognized the fact that conduct of licensed physicians plays a vital role in preserving the health and well-being of the people. They also recognized the fact that the agencies which existed in 1955 to handle disciplinary proceedings for the members of the profession licensed to practice medicine and surgery were employed very infrequently. Consequently, there was no effective means of handling disciplinary proceedings when they were necessary for the protection of health of the public.



JAMES H. BERGE, M.D.

The Act became operative in October 1955 when the first Board was elected and installed in office. Previous to that time, many complaints had been received by grievance committees of the state and county societies but these grievances could be handled by such committees only if the doctor involved belonged to the organization of which the committee was a part. Many of the violations with which doctors were charged concerned doctors who were not members of any medical society and as a consequence none of the committees had jurisdiction over them. The Act passed in 1955 concerns all of the licensed doctors of the state and has nothing whatsoever to do with membership in any organization. If a doctor is licensed to practice medicine in the state of Washington, he comes under the jurisdiction of the Medical Disciplinary Board.

There is a great deal of misunderstanding about the law and I believe it is necessary to understand exactly what the law says before any of us can understand why we should or should not enter complaints against another doctor.

The Act defines unethical conduct by listing 14 different points. These are:

1. Conviction in any court of an offense involving moral turpitude in which case the record of such conviction shall be conclusive evidence;
2. Procuring, or abetting, or aiding in a criminal abortion;
3. Fraud or deceit in obtaining a license to practice medicine;
4. All advertising of medical business which is intended or has a tendency to deceive the public or impose on credulous or ignorant persons and so be harmful or injurious to public morals or safety;
5. All advertising of any medicine or any means whereby the monthly periods of women can be regulated or a menses be established if supressed;
6. Impersonation of another licensed practitioner;
7. Habitual intemperance;
8. Use or prescription for use of narcotic drugs in any way other than for therapeutic purposes;
9. Offering, undertaking or agreeing to cure or treat disease by a secret method, procedure, treatment or medicine, or the treating, operating or prescribing for any human condition by a means, method or procedure which the licensee refuses to divulge upon demand of the court;
10. Willful betrayal of a professional secret;
11. Repeated acts of immorality, or repeated acts of gross misconduct in the practice of the profession;
12. Unprofessional conduct as defined in chapter 1968

(Continued on page 516)

*Chairman of the Washington State Medical Disciplinary Board.

(Continued from page 515)

of Remington's code of Washington which has to do with splitting of fees between optometrist and the man who grinds the lens.

13. Aiding or abetting an unlicensed person to practice medicine;

14. Declaration of mental incompetency by a court of competent jurisdiction.

As you will note, the Board does not hear cases of disputes between hospital administrations and staffs or between doctors. It has nothing to do with exorbitant fees, nothing to do with malpractice and it has nothing to do with disputes between doctor and patient unless in such disputes one of these articles of unprofessional conduct has been involved. Interpretation of the 14 items constituting unprofessional conduct is of paramount importance.

Conviction in any court involving moral turpitude has been decided by the Supreme Court of the State of Washington in two income tax evasion cases, and therefore is of record.

The other items are self-explanatory with the exception of item 11 which says repeated acts of immorality or repeated acts of gross misconduct in the practice of the profession shall constitute unethical conduct. This is the catch-all of the law and its interpretation is completely in the hands of the Medical Disciplinary Board until there has been decision on a case and it has been reviewed by the Supreme Court.

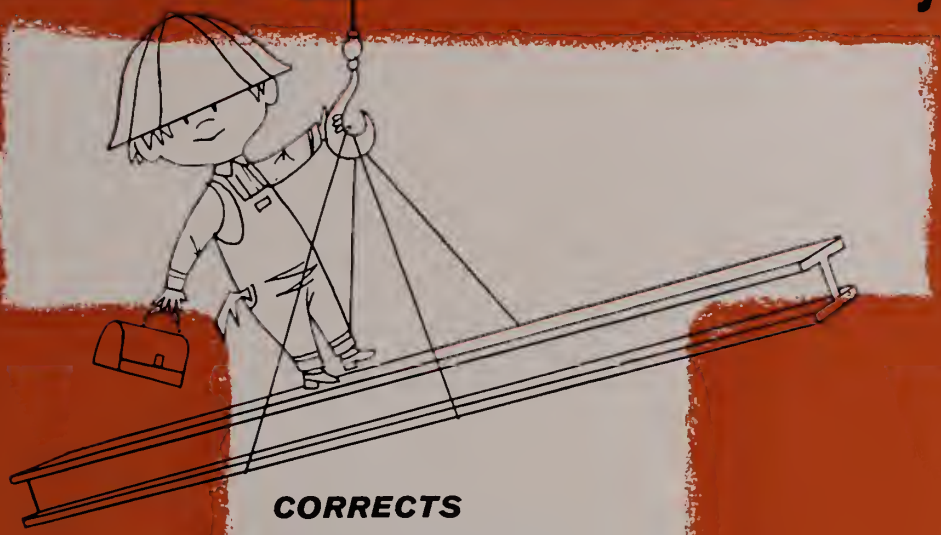
The Board has a right to adopt, amend, and rescind such rules and regulations as it deems necessary to carry out the provision of this act. Any person, firm, corporation or public officer may submit a written complaint to the secretary of the Board charging the holder of a license to practice medicine and surgery with unprofessional conduct and specifying the grounds on which the charge is made. These complaints then come to the Board and are reviewed. The Board determines whether or not such a complaint merits consideration, and in the event it does not merit consideration, the case is closed. If the Board determines that the complaint merits consideration, a hearing committee is named, and the secretary prepares a specification of the charge or charges of unprofessional conduct made against the license holder. A copy of this is served upon the accused, together with a notice of the hearing. Time of the hearing is fixed by the secretary as soon as convenient but not earlier than 30 days after services of the charge upon the accused. The hearing committee consists of three members of the Board who hear the case and make their report to the Board as a whole. The Board then decides whether or not to accept the report of the hearing committee or may decide to hold a hearing with the entire Board preesnt. The Board has the power to issue subpoenas, to compel the presence of witnesses, and to administer oaths. Any failure to obey the order of the Board may be punished by the court as a case of civil contempt. After a hearing is held, the case is dismissed or a sentence is pronounced, depending upon the decision of the Board. This finding is then filed in the office of

(Continued on page 518)



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LYSINE VITAMINS



CORRECTS IRON DEFICIENCY AS IT STIMULATES APPETITE

DELICIOUS CHERRY FLAVOR
DESIGNED TO APPEAL TO
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Supplies essential Iron as ferric pyrophosphate, highly stable, well-tolerated, readily absorbed; essential vitamins B_1, B_6 and B_{12}, established as appetite stimulants; essential l-Lysine for greater protein economy in the pediatric diet.

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FORMULA: Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Alcohol	0.75%

Average dosage is 1 teaspoonful daily.
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(Continued from page 516)
the Director of Licenses, and, when applicable, a certification of revocation or suspension is issued by that department. The licensee may seek a judicial review of the Board's decision. During such review, the revocation or suspension of his license is stayed and is not effective nor does it commence to run until final judgment has been entered and any proceeding instituted by the licensee has been concluded.

The Board is represented by the Attorney General and we have had excellent cooperation from his office. We are often unable to determine whether or not a case comes under our jurisdiction and in such cases make it a practice to ask the Attorney General's office for an opinion. This has always been given us, but we are not bound to accept it—it is advisory only.

As I stated previously, the great catch-all in the items defining unprofessional conduct is No. 11—repeated acts of immorality or repeated acts of gross misconduct in the practice of the profession. This must be interpreted by the Board. In the past we have had many complaints from lawyers and judges as to the biased and slanted testimony of doctors in the courtroom. Various plans have been promulgated in other jurisdictions to solve this problem, notably the New York Plan and the Minnesota Plan, but none of them have been satisfactory.

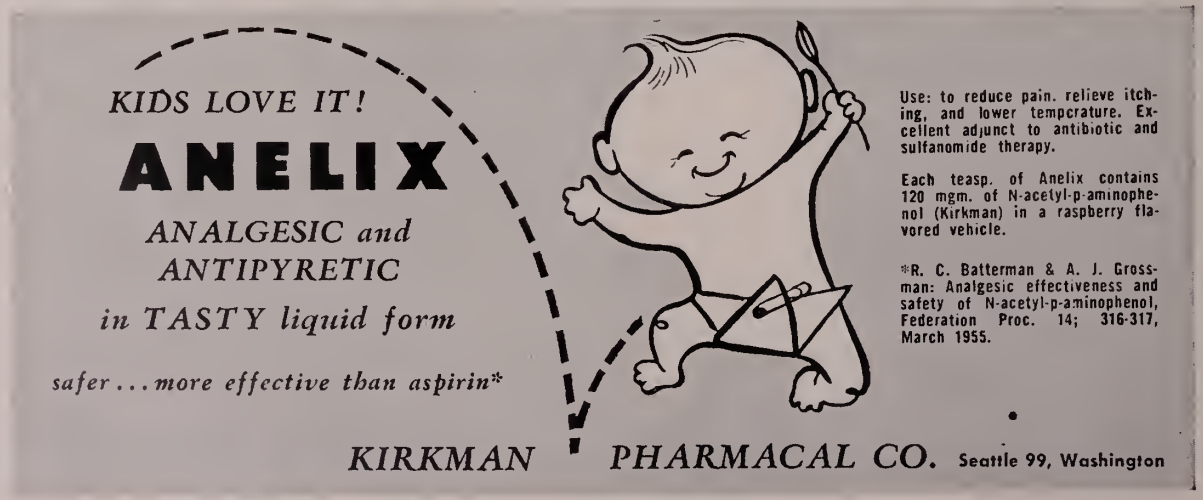
It is the feeling of the Board that there is a distinct difference between legal perjury and medical perjury. I recall one doctor who testified in the case of a woman who was six weeks pregnant at the time of an automobile accident. The case came up for trial some six weeks before her baby was to be born and one doctor testified in the case, saying that he felt the baby would be marked and a nervous wreck all of its life because of the fright of the mother when she was six weeks pregnant. This was a gross misstatement with which no other doctor agreed. This man was cited before the board of trustees of his medical society for perjury. He stated that, although he knew that no one else in the medical profession believed that such was the case, it was his own personal opinion and therefore he had not perjured himself because he had said exactly what he believed to be true. The board of trustees at that time was advised by the society's attorneys that this did not constitute perjury, in a legal sense. However, it is our feeling that it did constitute perjury in a medical sense, and that the doctor had perjured himself. At the present time, we would have heard that case before the Medical Disciplinary Board. We feel that such statements in the courtroom constitute gross immorality.

There is also the doctor who repeatedly testifies in personal injury cases at variance with all the other doctors who have seen the case, and we feel that his testimony should be open to review by the Board.

Since the Board was organized we have reviewed 30 cases. These have been broken down as follows:

Category	*Number of Cases*	*Action*
Unprofessional Conduct	1	License revoked
Addiction to Narcotics	3	Deferred for further information
Erroneous Diagnosis	3	Dismissed for insufficient evidence
Unethical	1	Dismissed for insufficient evidence
Use of Narcotics	1	Referred Narcotics Bureau
Maltreatment and Brutality	1	Closed—insufficient evidence
Unethical behavior in connection with patients committed to mental institutions	3	Closed after investigation
Betrayal of Professional Secrets	1	Case closed
Errors of Medical Treatment	3	Closed for insufficient evidence
Income Tax Evasion	2	Licenses suspended
Improper Treatment	2	Referred to grievance committee
Overcharging	2	Closed for insufficient evidence
Incompetence	1	Pending further action
Abortion	1	Deferred for more information; California license revoked 1955
License obtained by Fraud	1	Dismissed; insufficient evidence

In conclusion, I feel that the Board has functioned very well and that the Medical Disciplinary Law has operated for the benefit of the public as well as the doctors. Every case that has come before us has been thoroughly investigated. Some of the cases have not been of the type the Board could hear, and those cases have been dismissed. I feel that in the future many of these problems which I have cited in this article will be resolved by decision of the Supreme Court and until that time the Board must make its own decisions.



Gunnar Gundersen, AMA President-Elect, To Address 1958 Annual Session

Gunnar Gundersen of LaCrosse, Wisconsin, president-elect of the American Medical Association, will be featured speaker at the 1958 convention of the Washington State Medical Association, according to an announcement by President Milo T. Harris.



GUNNAR GUNDERSEN, M.D.

Dr. Harris also announced the selection of five outstanding guest speakers for the scientific program of the convention, which will be held September 14-17 in Spokane, with headquarters at the Davenport Hotel. Arrangements are being made for a sixth guest scientific speaker, whose name will be announced in the near future.

Dr. Gundersen will deliver an inspiring message based on his many years as a physician and long experience in organized medicine. He was a member of AMA Board of Trustees for nine years, the final two years as chairman, prior to being named president-elect last year. He will assume the presidency in June.

The guest scientific lecturers will address general sessions in the afternoons of Tuesday and Wednesday, September 16 and 17, and will also speak at the six refresher courses planned for the morning programs those days, according to Clyde A. Stevenson of Spokane, chairman of the Scientific Program Committee.

The speakers and their topics for the afternoon programs are as follows:

John Caffee, New York, professor of radiology at Columbia University and radiologist to Babies Hospital, Presbyterian Hospital and Vanderbilt Clinic: The Osteochondroses and Normal Variation in the Growing Skeleton, and Radiographic Signs of Mongoloidism During Early Infancy.

Walter A. Fansler, Minneapolis, clinical professor and director of the Division of Proctology, University of Minnesota Medical School: Polyps of the Colon, and Hemorrhoids and Fissures.

W. S. Middleton, Washington, D.C., chief medical director, Department of Medicine and Surgery, Veterans Administration: Aneurysm of the Aorta.

Robert D. Murray, head, Department of Orthopedics, Scott and White Clinic, Temple, Texas: Osteomyelitis, and Fractures of the Elbow.

Lucian Smith, Rochester, Minnesota, assistant professor of medicine, Mayo Foundation: Abdominal Pain.

Schedules and subjects of the refresher courses to be given during the morning sessions will be announced in the near future.

Walla Walla Valley Medical Society

Richard Kleaveland of Spokane was guest speaker at the January dinner meeting of the Walla Walla Valley Medical Society. Dr. Kleaveland spoke on Recent Developments in Vascular Surgery.

Orvar Swenson To Speak May 3 At Tacoma Surgical Club Annual Session

Orvar Swenson, professor of pediatric surgery at Tufts University School of Medicine, Boston, Mass., will be guest speaker at the 27th Annual Meeting of the Tacoma Surgical Club. The meeting will be held at Jackson Hall in the Tacoma General Hospital, Saturday, May 3.

As in the past, morning session will be devoted to anatomic dissections and demonstrations and afternoon session to presentation of scientific papers.

Following is the program as reported by Dumont S. Staatz of Tacoma, secretary-treasurer of the organization:

PROGRAM

The Tacoma Surgical Club
Twenty-Seventh Annual Meeting
Saturday, May 3, 1958

Jackson Hall—Tacoma General Hospital

MORNING SESSION:
Anatomic Dissections and Demonstrations

LUNCHEON—1:00 P.M.:
Cafeteria, Tacoma General Hospital, $1.50

AFTERNOON SESSION—2:15 P.M.:
1. Discussion of Morning Session—ORVAR SWENSON
2. Megacolon—ORVAR SWENSON
3. Chief Complaint, Pain in the Knee—ROBERT W. FLORENCE
4. Tumors of the Neck in Children JOHN T. ROBSON
5. Coffee Break—10 minutes
6. Intestinal Polyps; Problems and Importance in Children—ROBERT R. BURT
7. Inguinal Herniorrhaphy in Infants and Children; When? Why? How?—STANLEY W. TUELL
8. Discussion of Program—ORVAR SWENSON

EVENING SESSION:
6:00 P.M.—Social Hour; 7:00 P.M.—Banquet (Informal), Tickets $7.50—Bay View Room, Hotel Winthrop
EDWARD R. ANDERSON, presiding
Address—Principles of Pediatric Surgery—ORVAR SWENSON

Yakima County Medical Society

Guest speakers at the February meeting of Yakima County Medical Society were two Seattle physicians, Samuel Aronson, president of Washington State Heart Association, and Donal Sparkman, chairman of the American Heart Association's Rehabilitation Committee. Topics of discussion were Cardiac Rehabilitation and State Industrial Compensation Cardiac Cases.

Other guests present at the meeting were William J. Foley, Medical Director, Washington State Department of Labor and Industries, and Lloyd Farner, Medical Consultant to Department of Vocational Rehabilitation. Drs. Foley and Farner while in Yakima also attended the two-day workshop on heart rehabilitation for public agencies, physicians, and business and labor sponsored by the South Central Branch of the State Heart Association.

Statewide Activities To Promote Medical Education Week, April 20-26

The third annual observance of Medical Education Week will be conducted in the state of Washington and across the nation April 20-26. The Washington State Medical Association, local medical societies and the University of Washington School of Medicine will cooperate in the program.

A salute to medical school progress, the special week has been set aside for informing the public of the important role played by the medical schools and their graduates in the health and well-being of the nation. It offers a special opportunity also to show the doctor as an integral member of the community, and to demonstrate the training necessary to produce a physician.

So that the public may see and appreciate what is being done in medical education in this state, the University of Washington School of Medicine will hold open house Thursday, April 24, from 2 to 10 p.m. The open house will include not only the medical school, but also the schools of dentistry, pharmacy and nursing. This event last year attracted more than 4,000 persons, a large proportion of whom were young people potentially interested in health and science careers.

More than 50 displays and demonstrations will be shown at the open house, including the artificial heart-lung machine, electric eels used in the study of body-cell electric potentials, demonstrations of patient care by nursing students, the medical instrument shop and the 110-chair main dental clinic. A special feature will be the exhibit, "Life Begins," loaned by the American Medical Association.

Plans have been made for the use of various media in providing information to the public. In addition to coverage arranged by local committees, special news releases and feature materials will be sent to daily and weekly newspapers to focus public attention on the ever-increasing contribution of medicine to American life and the basic significance of medical education. A special, taped radio program will be made available to all radio stations in the state. Television programs also are contemplated.

Supplementing the promotion through the news media will be speaking engagements before luncheon and service clubs, exhibits and window displays.

Francis M. Lyle of Spokane is state chairman for Medical Education Week. Members of his committee are Arnold J. Herrmann, Tacoma; Leif K. Pratum, Seattle; and C. R. Viers, Ferndale.

Tularemia Cases Reported by Health Dept.

Two confirmed cases of tularemia, Washington's first since 1955, were reported during February by the State Health Department. The victims, both Thurston county residents, contracted the disease last November while trapping muskrats in the Ellensburg area. The cases, however, were not reported until early January and the men were still undergoing treatment at the time of the announcement by the Health Department.

State Association of Blood Banks Holds Annual Meeting in Seattle

Representatives from 10 National Blood Banks and approximately 40 physicians and medical technicians attended the seventh Annual Meeting of Washington State Association of Blood Banks at the King County Central Blood Bank in Seattle March 8.

The scientific program was presented by Neville Hughes-Jones, Beverly Gabrio, Ph.D., and Eloise Giblett, all staff members of the King County Blood Bank. They spoke on research problems affecting erythrocyte destruction and preservation, and problems connected with abnormal antibodies and their detection in blood transfusions.

Business portion of the meeting included discussions of the National Clearing House Program, Civil Defense problems connected with blood banking, establishment of a central office for the American Association of Blood Banks, and the election of officers. The following were re-elected: Robert P. Gill, Whatcom County Blood Bank, president; Mr. Earle Gibb, Whatcom County Blood Bank, secretary-treasurer; Mr. Donald T. Dougherty, Spokane and Inland Empire Blood Bank, vice-president, and Mr. Soren Juul, King County Blood Bank, and C. C. Christianson, Spokane and Inland Empire Blood Bank, trustees.

Bellingham Physician Appointed Temporary Head at Eastern State

Sheldon C. Bajema, former Bellingham and Lynden physician, is serving as temporary head of the maximum security building at Eastern State Hospital, Medical Lake, pending the appointment of a permanent successor to E. R. Hodgson who resigned in January.

Dr. Bajema was a staff physician at the hospital in 1955 and 1956. He served as City Health Officer at Lynden in 1940 and 1941 and following his discharge from the Air Force in 1944, he opened his practice in Bellingham.

A spokesman for the State Legislative Council's Committee on Institutions has reported that the following changes either have already been made or are contemplated to improve the security and service at the hospital:

Only the criminally insane and psychotics will be assigned to the hospital. The hospital superintendent will interview and examine psychotics before they are admitted to the security unit.

Security unit guards will wear hospital uniforms instead of police-type uniforms and the term *guard* will be discarded.

UWSM Receives Funds from A.M.E.F.

The University of Washington School of Medicine has received a gift of $7,022.09 from the American Medical Education Foundation of Chicago. According to Francis M. Lyle of Spokane, state chairman for the Foundation, donations to the fund by Washington physicians in 1957 totaled $9,115.82, largest amount contributed to date.

WAGP Annual Meeting in Yakima May 30-31 To Have "Professional Holiday" Theme

General practitioners from throughout the state will gather at the Chinook Hotel in Yakima May 30 and 31 for the annual meeting of the Washington Academy of General Practice. Falling as it does on the Memorial Day weekend, the meeting will have the theme, "Professional Holiday for the Family Doctor and His Family."

The two-day session will include exhibits, medical movies, scientific papers, and discussion and question periods. Scheduled entertainment includes a one act play by the Little Theatre Group, Swiss yodelers, and a chartered plane flight over the Cascades.

Banquet speaker will be E. Cowels Andrus, Past-President of American Heart Association. Dr. Andrus is in charge of the Cardiology Clinic and Professor of Medicine at Johns Hopkins University School of Mediicne, Baltimore, Maryland. His subject will be announced.

Other guest speakers and their subjects are: Joel Baker, Seattle, President-Elect of American College of Surgeons—Abdominal Emergencies; Louis A. Buie, Rochester, Minn., Emeritus Professor of Proctology at Mayo Foundation Graduate School of University of Minnesota, Member of the Judicial Council of AMA, Editor-in-Chief of *Diseases of the Colon and Rectum*—Management of Surgical Conditions of the Rectal Outlet, and narrated movie on Endoscopic Lesions of the Terminal Portion of the Colon; Charles E. McLennan, San Francisco, Professor and Head of the Department of Obstetrics at Stanford University School of Medicine—How to Deal with Abnormal Uterine Bleeding, and Uterine Cancer in General Practice; George R. Cowgill, PhD., New Haven, Conn., Professor of Nutrition at Yale University, and Head of the Yale Nutrition Laboratory, discoverer of vitamin B in its relationship to neuritis, published in 1934 the monograph entitled Vitamin B Requirement of Man—Nutrition as a Science Important for Medicine, and Nutrition in Medical Practice; Vincent C. Di Raimondo, San Francisco, Associate Professor of Medicine at University of California School of Medicine, Metabolic Unit of the University Associated with Peter H. Forsham—Clinical Applications of Recent Advances in Endocrinology, Parts I and II; Erroll W. Rawson, Seattle, Past-President of Washington Academy of General Practice—Lesions of the Breast; Joe Telford, San Diego, Cal., immediate Past-President of California Academy of General Practice, Member of the Membership and Credentials Commission of the American Academy of General Practice, President-Elect of the San Diego County Medical Association—General Practitioner of the Future.

Special feature for Friday afternoon is a two-hour panel on psychiatry to be moderated by Austin Kraabel of Seattle, chairman of Washington State Mental Health Survey Commission in 1955 and 1956, and Past-President of Washington Academy of General Practice. In addition to Dr. Kraabel, George Saslow of Portland, Professor of Psychiatry at the University of Oregon Medical School, and Frederick Lemere of Seattle, Clinical Professor of Psychiatry at the University of Washington School of Medicine, will speak on the panel. Dr. Saslow will discuss Emotional Aspects of Chronic and Serious Disease. Dr. Lemere will present a paper on Pharmacologic Treatment of Depression.

Poison Control Center Established in Vancouver at St. Joseph Hospital

Newest poison information center in Washington was set up at St. Joseph Hospital in Vancouver late in January. As with all poison control centers in the state, it is operated on a 24-hour basis under the supervision of a medical committee and provides physicians information about poisonous substances and treatment from its extensive, up-to-date file on products containing poisonous substances, poisons and their antidotes.

In a year-end report, the Spokane Poison Control Center, which is located in the emergency department of Deaconess Hospital, stated it handled 301 calls during its 10 months of operation, with 138 of the cases requiring medical attention.

Report for 1957 from the Seattle Poison Control Center in Children's Orthopedic Hospital noted that 1,275 calls were handled, with 309 children requiring emergency treatment. Among the cases, 475 were children from 1 to 2 years old; 377 were 1 to 3 years, and 208 were children 3 to 4 years. Aspirin headed the list of substances swallowed with 218 cases reported.

Centers in Washington State and their telephone numbers are as follows:

Olympia Poison Control Center—FLeetwood 2-3031, located at St. Peter Hospital.

Seattle Poison Control Center—LAkeview 4-4300, located at Children's Orthopedic Hospital.

Spokane Poison Control Center—RIverside 7-4811, located at Deaconess Hospital.

Tacoma Poison Control Center—GReenfield 4-0561, located at Pierce County Hospital.

Vancouver Poison Control Center—OXford 3-4791, located at St. Joseph Hospital.

Obituaries

Dr. Edward W. Templeton, 67, who had practiced in Snoqualmie the past 30 years, died February 11 at his Seattle home of a coronary thrombosis. Dr. Templeton received his medical degree in 1915 from Jefferson Medical College of Philadelphia. A daughter, Helene Templeton, practices medicine in Seattle.

Dr. William C. Riddell, 94, retired Seattle and Helena, Mont., surgeon, died January 14 of cardiac failure due to generalized arteriosclerosis. Dr. Riddell was graduated from the University of Michigan Medical School in 1886. He was a lieutenant colonel in the Army Medical Corps in France during World War I and had practiced intermittently in Seattle from about 1921 to 1947. While in Helena, Dr. Riddell served about 25 years as a member of the Montana State Board of Medical Examiners.

Dr. Samuel Max, 67, retired Snoqualmie physician, died February 6 in Huntington Park, Calif., where he was visiting relatives. Dr. Max received his medical training at Northwestern University Medical School from which he was graduated in 1916. He practiced briefly in Blaine before locating in Snoqualmie about 1920. He had retired from active practice in 1950.

Governor Establishes Inter-Agency Committee on Health, Education and Welfare Programs

A Washington state Inter-Agency Committee on Health, Education and Welfare Programs has been established by Governor Rosellini. The committee is composed of the directors and chief deputies of the state departments of Public Assistance, Health, Institutions, Public Instruction, Employment Security and Vocational Rehabilitation. Bernard Bucove, state director of health, is chairman.

Objectives of the committee, as stated in the minutes of its organizational meeting, held January 29, are "to reduce expense to the taxpayer, make the most efficient use of agency resources in related programs, and thus to improve and strengthen services to the people in the area of health, education and welfare."

Some inter-agency coordination and exchange of information existed before establishment of the new committee. It was stated at the meeting, however, that "some areas of cooperation leave much to be desired, such as: (1) the development of new programs; (2) the development of legislation; (3) the development of budget, and (4) a coordinated approach to the public."

A primary goal of the committee will be to determine the basic role of each department. The next step will be to outline an overall, statewide program, with each department's role as well defined as possible, and as coordinated with each other as is practical.

The commitete decided to start with a review of the progress of the previously existing Inter-Agency Committee on Mental Retardation. The governor said the success of this body had prompted him to set up the new committee, so that this kind of cooperative relationship might be put on a sounder and more formal basis.

The committee will set up subcommittees whenever more than two agencies are involved, or otherwise as need arises. Advisory commitees also will be established, as felt necessary by the subcommittees, and will be composed of representatives of official, voluntary and lay groups.

The parent committee plans to meet monthly, on the first Tuesday of each month.

Lehman Heads National Public Health Group

Sanford P. Lehman, director of Seattle-King County Health Department, has been elected president of the American Association of Public Health Physicians. Dr. Lehman is a charter member of the Association which includes more than 600 physicians throughout the country. The group meets twice a year in conjunction with meetings of the American Medical and American Public Health Associations.

Seattle Surgical Society Elects

Wilbur E. Watson is newly elected president of the Seattle Surgical Society. Dr. Watson was installed in office at conclusion of the Society's annual clinical meeting last month. He succeeds J. Irving Tuell. Other officers are: Charles E. MacMahon, president-elect; Allan W. Lobb, treasurer; Waldo O. Mills, secretary, and John W. Finley, assistant secretary.

Booklets on Low-Sodium Diets Available

Copies of three new booklets for adult heart patients on sodium-restricted diets are now available to physicians and also to patients on a physician's prescription. The booklets are published by the American Heart Association and were prepared under direction of a committee made up of representatives from AMA Council on Foods and Nutrition, Heart Association, U.S. Public Health Service, American Dietetic Association and the Nutrition Foundation.

Each booklet contains aids for the patient who is following the physician's prescription for a certain degree of sodium restriction: strict, 500 mg.; moderate, 1,000 mg.; and mild. Three different calorie levels—1,200 calories, 1,800 calories and unrestricted—are included also in each of the booklets. Food lists to enable the patient to vary his meals are given as well as practical suggestions on eating out and shopping for food. In addition, weight watching, meal planning and problems of the family cook are discussed.

Single copies may be obtained without charge from Washington State Heart Association, 3121 Arcade Building, Seattle.

Tax Council in Seattle April 18

The 15-member Tax Advisory Council, appointed by Governor Rosellini shortly after adjournment of the 1957 session of the Legislature, has scheduled a public hearing in Seattle April 18. All interested persons are invited to present their views on the state tax structure at the hearing.

The Council, whose members were selected from all parts of the state as representing the major segments of the state's economy, has the responsibility of submitting a report to the Governor on September 1. This report, based on the committee's findings, will propose a tax structure for the state which will yield adequate revenues equitably and with minimum adverse effect on the development of the state.

Committee Appointed for Medical Care of Mentally Retarded Children at Selah

Wesley D. White, director of Rainier State School at Buckley, recently named three Yakima pediatricians to serve as a committee for medical care of mentally retarded children at the former Central Washington Tuberculosis Hospital at Selah.

Willard B. Rew, Robert Crose and Walter Kennedy, Jr., are providing needed medical care for the children at the hospital, which has been changed over to a custodial school for mentally retarded persons.

The three physicians are continuing full-time private practice in Yakima along with their duties at the Selah institution.

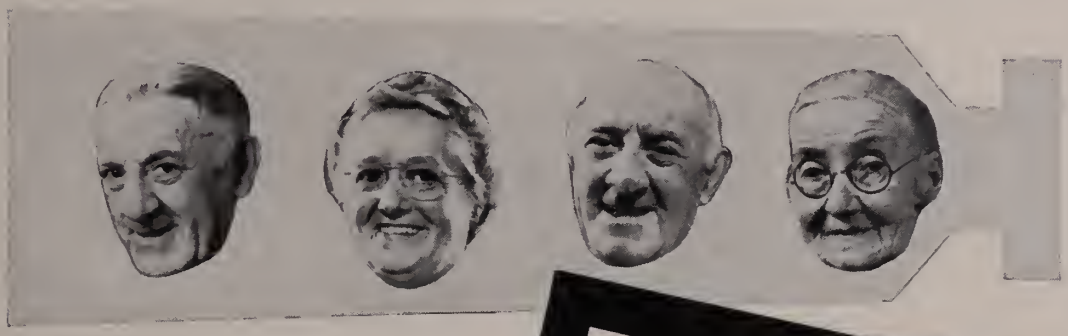
Grangeville Physician Honored

William H. Cone, Grangeville physician and surgeon, recently was presented with the Grangeville Junior Chamber of Commerce distinguished service award as the "outstanding young man of 1957."

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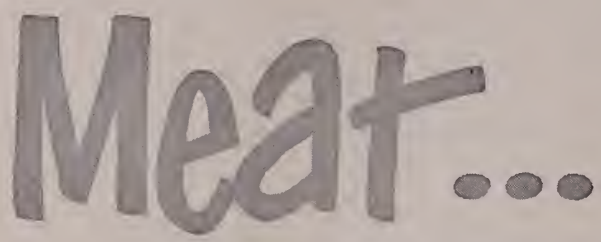
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The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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Idaho

IDAHO STATE MEDICAL ASSOCIATION
364 Sonna Bldg.
Boise, Idaho

SIXTY-SIXTH ANNUAL MEETING
July 6-9, 1958
Sun Valley

President, H. B. Woolley, M.D., Idaho Falls Secretary, W. B. Ross, M.D., Nampa Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

State Officers and Councilors Visit Component Societies

The Officers and Councilors started their 1958 visits to all of the component medical societies on March 11 when they met with officers, members and the auxiliary of the South Central Idaho District Medical Society in Jerome.

Participating in the meeting were President Hoyt B. Woolley, Idaho Falls; Immediate Past-President Charles A. Terhune, Burley; President-Elect Donald K. Worden, Lewiston; Secretary-Treasurer W. B. Ross, Nampa; Councilor F. Wayne Schow, Twin Falls; A.M.E.F. Chairman Jerome K. Burton, Boise; AMA Legislative Chairman E. V. Simison, Pocatello; Councilor Asael Tall, Rigby, (Dist. No. 4), and the Executive Secretary.

State Auxiliary officers who participated in the session included Mrs. Hoyt B. Woolley, Idaho Falls, president, and Mrs. E. R. W. Fox, Coeur d'Alene, president-elect.

Association Officers and Councilors met with officers and members of the Southwestern Idaho District Medical Society in Boise March 12.

State officers who participated in this meeting included President Woolley; President-Elect Worden; Secretary-Treasurer Ross; Councilor Frank L. Fletcher, Boise; Councilor Tall (Dist. No. 4); A.M.E.F. Chairman Burton; AMA Legislative Chairman Simison, and Executive Secretary Bird.

The auxiliary met separately for this meeting.

State Board of Medicine

C. Gedney Barclay of Coeur d'Alene has been appointed a member of the State Board of Medicine by Governor Robert E. Smylie to complete the unexpired term of Clyde E. Culp of Moscow, who resigned effective February 1 to accept a four-year fellowship in proctology at Mayo's. Dr. Barclay served a four-year term as a member of the first State Board of Medicine appointed in 1949 by then Governor C. A. Robins.

Dr. Barclay's term will run until March 21, 1959.

A temporary license was issued in February to:

John William Armstrong, Lewiston. A graduate of the University of Texas School of Medicine, Galveston. M.D. degree 1940. Internship Harper Hospital, Detroit, Michigan, 1941. Residency, Internal Medicine, Cleveland City Hospitals, 1946-48, and Southern Pacific Hospital, Houston, Texas, 1948-49. Granted T-200 on February 7. Internal Medicine.

Association Committees Meet

The Association's Public Health Advisory Committee met with officials of the State Department of Public Health in Boise on March 8. F. Wayne Schow, Twin Falls, is Chairman of the committee. Other members include Leland K. Krantz, Idaho Falls; Alexander Barclay, Coeur d'Alene; John R. McMahon, Poactello, and J. R. Farber, Nampa.

Terrell O. Carver, State Director, and Fred O. Graeber, Director, Crippled Children's Services, represented the Health Department at the session.

The Association's Constitution and By-Laws Committee met in Boise on Wednesday, March 12. Asael Tall, Rigby, is Chairman of the committee. Other members are Casper Pond, Pocatello, and C. Gedney Barclay, Coeur d'Alene.

Board of Health Appointment

Governor Robert E. Smylie has appointed Mr. George W. Watkins, Idaho Falls, as a member of the State Board of Health replacing Mr. Harry Elcock, Twin Falls, who resigned several months ago when he moved to Utah. Mr. Watkins is President of the Snake River Equipment Company, Idaho Falls and a member of the Board of Directors of the Federal Reserve Bank, San Francisco.

Paul M. Ellis, Wallace, is Chairman of the Board of Health. Other members include Mr. Hugh Wagnon, Pocatello; Mr. H. Westerman Whillock, Boise, and Mr. Fran L. Blomquist, Caldwell.

County Societies Elect Officers

Newly elected officers of Upper Snake River Medical Society for the coming year include:

PRESIDENT—W. A. Melcher, Ashton.

VICE-PRESIDENT—Robert R. Klamt, St. Anthony.

SECRETARY—Blaine H. Passey, Rexburg (re-elected).

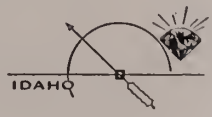
TREASURER—Emory L. Soule, St. Anthony (re-elected).

Shoshone County Medical Society elected the following officers for the current year at a meeting in February:

PRESIDENT—Albert M. Peterson, Wallace.

VICE-PRESIDENT—Orland B. Scott, Kellogg.

SECRETARY-TREASURER—Ernest E. Gnaedinger, Wallace.





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- technic is a depot action analogous to that of long-acting protamine-zinc insulin . . . a large molecular polyionic complex acts as a bonding agent
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- provides prolonged, gradual, uniform amphetamine release with no peaks or valleys of activity . . . no sudden bursts of drug release
- incorporates no "drug traps" — the amount of drug given is the amount of drug released, and all is available for absorption
- provides greater anorexic action while minimizing overstimulation

Synatan contains tanphetamin (dextroamphetamine tannate) 17.5 mg. in a Durabond tabule. *Also available*—SECO-SYNATAN®, Synatan plus secobarbital in a Durabond tabule.
Dosage—1 or 2 tabules at 10 a.m. for all-day control. For prescription economy prescribe in 50's.
To serve your patients today—call your pharmacist for any additional information you may need to help you prescribe Synatan and Seco-Synatan.

*Patent Pending

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Arthritis Foundation Sponsors Clinic in Boise

Idaho Chapter of the Arthritis and Rheumatism Foundation sponsored a clinic at the Idaho Elks Rehabilitation Center, Boise on February 28. Roscoe C. Ward, Boise, arranged an excellent program and during the clinic 44 cases were presented. Clinicians who participated in the session included: R. E. Rinehart, Wheeler, Oregon; Edward E. Rosenbaum, David K. Taylor, Arthur C. Jones, and Paul Campbell, all of Portland, Oregon.

Idaho State Radiological Society

Newly elected officers of the Idaho State Radiological Society are: Donald D. McRoberts, Lewiston, president; Alfred Stone, Boise, vice-president, and Charles R. McWilliams, Twin Falls, secretary-treasurer. Next meeting of the society is set for May 31 at Pocatello.

Present aims of the group, which was organized in 1950, are to clarify and stabilize the hospital-radiologist relationship under the Medical Practice Act of the State of Idaho, and to promote the cause of better radiologic practice in Idaho.

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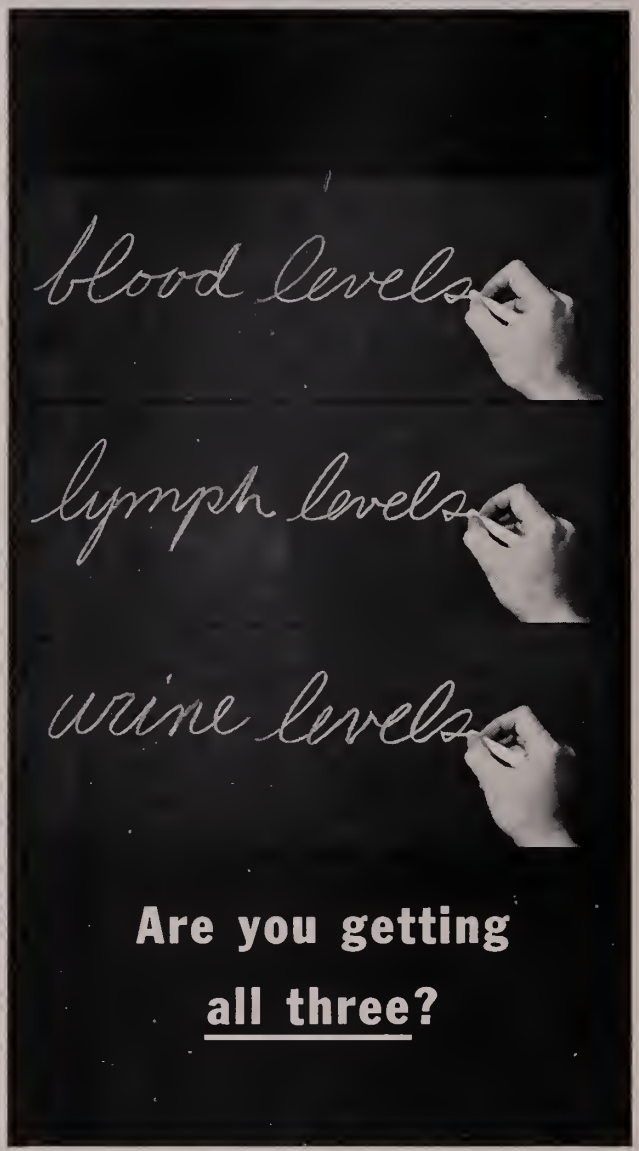
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For quick relief of bronchospasm of any origin. More rapid than injected epinephrine in acute allergic attacks.

Epinephrine bitartrate, 7.0 mg. per cc., suspended in inert, nontoxic aerosol vehicle. Contains no alcohol. Each measured dose 0.15 mg. free epinephrine.

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Unsurpassed for rapid relief of symptoms of asthma and emphysema.

Isoproterenol sulfate, 2.0 mg. per cc., suspended in inert, nontoxic aerosol vehicle. Contains no alcohol. Each measured dose 0.06 mg. free isoproterenol.

MEDIHALER® *For Ample Air Right Now!*

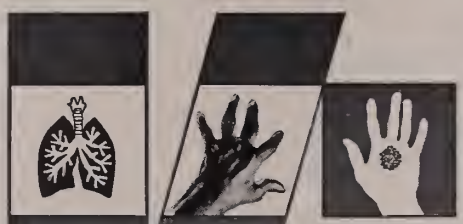
Millions of asthmatic attacks have been aborted faster, more effectively, more economically with Medihaler-Epi and Medihaler-Iso. Automatically measured dosage and true nebulization...nothing to pour or measure...One inhalation usually gives prompt relief.

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- far less gastrointestinal distress
- safe to use in asthma with associated cardiac disease; no sodium and water retention
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Alaska

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Anchorage, Alaska

President, Hugh B. Fate, Fairbanks

ANNUAL MEETING
May 15-17, 1958
Fairbanks

Secretary, Robert B. Wilkins, M.D., Anchorage

Program Planned for ATMA Annual Session in Fairbanks May 15-17

Members and guests attending the 13th Annual Convention of Alaska Territorial Medical Association in Fairbanks May 15-17, will find two innovations added to the program. For the first time there will be a narrated movie session and a breakfast round-table discussion. The movies are scheduled for the evening of the first day of the meeting and the breakfast round-table will be held the second day of the session, Friday, May 16.

Mrs. E. A. Underwood of Vancouver, Wash., president-elect of AMA Auxiliary, will address the ATMA Auxiliary as main speaker of their program. Mrs. Underwood, who is a practicing dentist, will also address the Association Convention on the subject of dentistry.

Henry G. Storrs of Fairbanks, program chairman, reports the following as the tentative program and list of guest speakers and subjects for the 1958 Annual Session:

Tentative Program
Alaska Territorial Medical Association
13th Annual Meeting

Thursday, May 15:

8:00 A.M.	Registration
9:00 A.M.	Report from Government Agencies
10:30 A.M.	Recess—Visit Exhibits
11:00 A.M.	Business Meeting
12:00 Noon	Lunch
1:30 P.M.	Scientific Session
3:00 P.M.	Recess—Visit Exhibits
3:30 P.M.	Scientific Session
5:00 P.M.	Dinner
7:30 P.M.	Narrated Movies

Friday, May 16:

7:30 A.M.	Breakfast Clinic—Radiation Medical Problems in the Territory
9:00 A.M.	Business Meeting
10:30 A.M.	Recess—Visit Exhibits
12:00 Noon	Lunch
1:30 P.M.	Scientific Session
3:00 P.M.	Recess
3:30 P.M.	Scientific Session
7:00 P.M.	Annual Banquet

Saturday, May 17:

9:00 A.M.	Business Meeting
10:30 A.M.	Recess—Visit Exhibits
12:00 Noon	Lunch
1:30 P.M.	Scientific Session
3:00 A.M.	Recess
3:30 P.M.	Scientific Session
5:00 P.M.	Adjournment



GLADYS UNDERWOOD, D.D.S.
Vancouver, Washington



E. A. UNDERWOOD, M.D.
Vancouver, Washington



ROBERT N. RUTHERFORD, M.D.
Seattle, Washington



WILLIAM WATTS, M.D.
Seattle, Washington



HUGH B. FATE, M.D.
Fairbanks, Alaska



K. ALVIN MERENDINO, M.D.
Seattle, Washington

(Continued on page 534)



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A specific immunizing antigen (chick embryo origin) for prevention or modification of mumps in children and adults. Vaccination should be repeated annually.

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COOK COUNTY GRADUATE SCHOOL OF MEDICINE

INTENSIVE POSTGRADUATE COURSES
STARTING DATES—SPRING AND SUMMER, 1958

SURGERY—Surgical Technic, Two Weeks, May 12, June 16.
Surgery of Colon and Rectum, One Week, May 5, June 2.
Basic Principles in General Surgery, Two Weeks, July 7.
Gallbladder Surgery, Three Days, June 2.
Surgery of Hernia, Three Days, June 5.
General Surgery, Two Weeks, May 5, One Week, May 12.
Breast & Thyroid Surgery, One Week, May 5.
Fractures & Traumatic Surgery, One Week, June 9.
American Board Review Course, Two Weeks, Fall of 1958.

GYNECOLOGY & OBSTETRICS—
Office & Operative Gynecology, Two Weeks, June 2.
Vaginal Approach to Pelvic Surgery, One Week, July 14.
General & Surgical Obstetrics, Two Weeks, June 16.

MEDICINE—General Review Course, Two Weeks, May 12.
Electrocardiography, One Week Advanced Course, June 16.
Hematology, One Week, June 2.
American Board Review Course, One Week, September 29.

PEDIATRICS—Two-Week Intensive Course, April 21.
Neuromuscular Diseases, Cerebral Palsy, Two Weeks, July 7.

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, June 9.
Clinical Uses of Radioisotopes, Two Weeks, May 5.

CYSTOSCOPY—Ten-Day Practical Course, by appointment.

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(Continued from page 533)

SATURDAY EVENING AND SUNDAY, MAY 18:
Entertainment and trips around Fairbanks arranged by the Woman's Auxiliary

	SPEAKERS	SUBJECTS
1.	F. B. BEIRNE	The Pap Smear: Its Use and Abuse
2.	CAPT. C. R. BOGE	Experience with Staphylococci at a Northern Military Base
3.	C. T. DOTTER	Current Development in Cardiovascular Radiology
		Coals to Newcastle
4.	D. L. DRAKE F. S. PHILLIPS	Common Diagnostic Oversight in Chest Disease and Injury
5.	H. B. FATE	Annual Report
6.	J. A. GALLAGHER	A.N.H.S. Report
7.	R. T. GARDNER	Radiation Exposure (Round table discussion)
8.	H. V. GIBSON	A.D.H. Report
9.	G. E. HALE	Cardiac Arrest – Report of Two Cases
10.	E. S. HARRIS	Cardiac Catherization in Children
11.	W. A. RICKER	Recent Advances in Laboratory Diagnoses
12.	ROBERT JOHNSTON	Bilroth 1, Reconstruction
13.	R. F. JONES	Gastric Ulcer: Medical or Surgical
		Lesions of the Gastrointestinal Tract That Are Commonly Misdiagnosed
14.	K. A. MERENDINO	Surgical Treatment of Valvular Rheumatic Heart Disease, With Special Reference to the Treatment of Mitral Regurgitation under Direct Vision, with the Aid of a Pump-Oxgenator
		The Concept of Sphincter Substitution by interposed Jejunal Segment: The Treatment of Reflux Esophagitis, Cardiospasm, Esophageal Varices and Miscellaneous Lesions.
15.	W. J. MILLS, JR.	Parents, Children and Feet
16.	H. C. MYERS	The Curable Stage of Gastric Carcinoma
		Management of Disease of the Gallbladder
17.	F. B. QUEEN	Some Problems of Head and Neck Cancer
		Problems of Soft Tissue Neoplasms
18.	E. S. RABEAU	Phyllodes Cystosarcoma
19.	R. N. RUTHERFORD	Psychometric Studies in Handling Functional Problems of Gynecology
		Current Status of Sterility Study
20.	E. A. UNDERWOOD	Ophthalmology
21.	GLADYS UNDERWOOD, D.D.S.	Dentistry
22.	WILLIAM WATTS	Fat, Fad and Coronary Disease
23.	CAPT. D. L. WERNER	Medical Problems in Alaskan Maneuvers
24.	O. WILDERMUTH	Title to be announced
25.	T. WINSOR	Heart Association
26.	L. H. WRIGHT	Choice of Anesthetic Agent and Technique
		What is New in Anesthesia?

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Is she blue at breakfast? Prescribe BONADOXIN. Usually just one tablet at bedtime stops nausea and vomiting of pregnancy...

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MECLIZINE HCl . . . . . 25 mg.
PYRIDOXINE HCl . . . . . 50 mg.

Bottles of 25 and 100.

References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

...and for a nutritional buildup plus freedom from leg cramps*

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phosphate-free calcium, 10 essential vitamins, 8 important minerals. Bottles of 100.

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North Pacific Orthopaedic Society To Hold Annual Session in Tacoma

North Pacific Orthopaedic Society will hold its annual meeting Friday, May 9, and Saturday, May 10, in Tacoma. On Thursday evening, May 8, there will be a welcoming buffet dinner at the Top o' the Ocean.

The scientific program will be presented at Pierce County Medical Society Auditorium on the first floor of the Medical Arts Building. The County Society Auditorium and Headquarters will also be the place of registration, which will open at 8:00 A.M. Friday. Presidential Suite of the Hotel Winthrop will be the special gathering place for physicians and their wives.

The annual session is a closed meeting for members and guests. Those desiring additional information about the meeting are asked to contact the Society secretary: Dumont S. Staatz, M.D., 919 South Ninth, Tacoma, Wash.

Antivivisection Bill Introduced In Congress by Rep. Burdick

A bill to prohibit interstate shipments of any dog or cat for medical or other scientific experimentation has been introduced in Congress by Representative Usher Burdick of North Dakota. The bill calls for maximum penalties of $1,000 or imprisonment for one year to any person who "procures, obtains or facilitates . . . the transportation of any dog or cat in interstate commerce with the intent . . . that such dog or cat shall be used for purposes of vivisection, or for the purpose of medical or any scientific experimentation."

The Burdick bill was introduced on February 26 and bears the number H.R. 10996. It has been referred to the House Committee on Interstate and Foreign Commerce.

Since interstate shipments of animals are essential to many of America's medical research and teaching institutions, enactment of the Burdick bill would cripple their operations and thus inevitably cost human lives.

Physicians and medical societies can influence the consideration of the Burdick bill by writing to their own congressmen and to Representative Oren Harris, chairman of the House Committee on Interstate and Foreign Commerce, explaining what effect the bill would have on medical research and education.

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Electromyography

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Lorraine Knudson, R.N.

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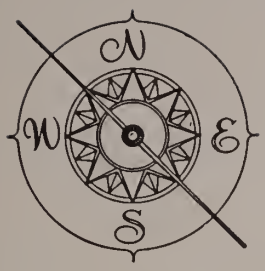
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Each Buff Scored Tablet Contains
Mephenesin NNR ..... 6 grs.
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Average adult dosage: 1 tablet every 4 hours, after meals. 1 to 2 tablets may be taken upon retiring.
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Page 667

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BOOKS

"Bad and indifferent criticism of books is just as serious as a city's careless drainage."

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RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

A Therapy for Anxiety Tension Reactions. By Gerhard B. Haugen, M.D., Assistant Clinical Professor of Psychiatry, University of Oregon Medical School, Portland; Psychiatric Consultant to Oregon State Board of Parole and Probation; Henry H. Dixon, M.D., Clinical Professor and Head of Department of Psychiatry, University of Oregon Medical School; and Herman A. Dickel, M.D., Associate Clinical Professor, University of Oregon Medical School. 110 pp. Price $3.50. The MacMillan Co., New York. 1958.

The Essence of Surgery. By C. Stuart Welch, M.S., M.D., Ph.D., Professor of Surgery, Albany Medical College of Union University, Albany, N.Y.; and Samuel R. Powers, Jr., A.B., M.D., M.Sc.D., Professor of Experimental Surgery, Albany Medical College of Union University. 320 p. 50 figures. Price $7.00. W. B. Saunders Co., Philadelphia. 1958.

The Alimentary Tract of the Ruminant. By David Benzie, and A. T. Phillipson, M.A., Ph.D., M.R.C.V.S., F.P.S.E., The Rowett Research Institute, Buksburn, Aberdeenshire, Great Britain. 75 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Chemistry of Lipides as Related to Atherosclerosis —A Symposium. Compiled and edited by Irvine H. Page, M.D., Cleveland Clinic Foundation. Cleveland, Ohio. 342 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

So You Want To Be a Doctor. By Alan E. Nourse, M.D., North Bend, Washington. 180 pp. Price $2.75. Harper & Brothers, New York. 1957.

Heart Disease—Cause, Prevention and Recovery. By Philip S. Chen, Ph.D., Professor of Chemistry and Chairman of Division of Natural Sciences, Atlantic Union College; with the assistance on Part I of Philip S. Chen, Jr., Ph.D., National Heart Institute. 189 pp. Illustrated. Price $3.00. Chemical Elements, South Lancaster, Mass. 1958.

The Chemistry of Blood Coagulation. By Paul Morawitz, Marburg, Germany. Translated by Robert C. Hartmann, M.D., and Paul F. Guenther, M.A., Ph.D., From the Departments of Medicine and German, Vanderbilt University, Nashville, Tennessee. 194 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Spinal Anesthesia. By John B. Dillon, M.S., M.D., Professor of Surgery and Chief of Division of Anesthesia, Department of Surgery, University of California Medical Center, Los Angeles; Formerly Associate Clinical Professor of Surgery (Anesthesia), University of Southern California and The College of Medical Evangelists, Los Angeles, Chief of Department of Anesthesia, Los Angeles County Hospital. 61 pp. Illustrated. Price $3.00. Charles C Thomas, Springfield, Ill. 1958.

Pharmacology and Therapeutics; Textbook for Students and Practitioners of Medicine and its Allied Professions. Ed. 3, Revised and Enlarged. By Arthur Grollman, Ph.D., M.D., F.A.C.P., Lecturer in Pharmacology and Toxicology, The Medical Branch, and Professor and Chairman of Department of Experimental Medicine, The Southwestern Medical School, The University of Texas; Attending Physician, Parkland Memorial Hospital; Consultant in Internal Medicine, Baylor University Hospital; Consultant, Veterans Administration Hospital, Dallas, Texas; Civilian Consultant, The Surgeon General, U. S. Air Force. 1046 pp. 192 illustrations. Price $12.50. Lea & Febiger, Philadelphia. 1958.

Therapeutic Heat. Edited by Sidney Licht, M.D., Honorary Member, British Association of Physical Medicine, Danish Society of Physical Medicine, and the French National Society of Physical Medicine. 466 pp. Price $12.00. Elizabeth Licht, New Haven, Conn. 1958.

(Continued on page 539)

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The most widely prescribed broad-spectrum antibiotic now potentiated with glucosamine, the enhancing agent of choice.

Cosa-Tetracyn is supplied in capsules, 250 mg., bottles of 16 and 100; and half-strength capsules (125 mg.) for long-term therapy or pediatric use, bottles of 25 and 100.

1. Carlozzi, M.: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958.

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*TRADEMARK

(Continued from page 537)

A Handbook on Diseases of Children Including Dietetics and the Common Fevers. Ed. 8. By Bruce Williamson, M.D., Edin., F.R.C.P. Lond., Physician, Children's Dept., Royal Northern Hospital, London; Children's Hospital, Northaw; Prince of Wales General Hospital, London; Barnet General Hospital; Enfield War Memorial Hospital; Lecturer, North London Post-Graduate Institute. 483 pp. Illustrated. Price $6.00. E. & S.. Livingstone Ltd., Edinburgh and London. 1957. Distributed by Williams & Wilkins Co., Baltimore.

Aids to Ophthalmology. Ed. 11. By P. McG. Moffatt, M.D. (Lond.), M.R.C.P., F.R.C.S. (Eng.), D.O.M.S., Consultant Ophthalmic Surgeon and Lecturer, Moorfields Eye Hospital, Hammersmith, West London and St. Mark's Hospital Groups; Lecturer Post-Graduate Medical School; Recognized Teacher of London University; Senior Ophthalmic Consultant and Adviser, London County Council Central Medical Staff. 282 pp. Illustrated. Price $3.00. Williams & Wilkins Co., Baltimore. 1957.

Human Biochemistry. Ed. 5. By Israel S. Kleiner, Ph.D., Professor of Biochemistry and Director of Department of Biochemistry, New York Medical College, Flower and Fifth Avenue Hospitals; Formerly Associate, The Rockefeller Institute for Medical Research, New York; and James M. Orten, Professor of Physiological Chemistry, Wayne State University College of Medicine, Detroit, Mich. 808 pp. Illustrated. Price $9.00. The C. V. Mosby Co., St. Louis. 1958.

Reaching Delinquents Through Reading. By Melvin Roman, Ph.D., Formerly Director of Group Psychotherapy, New York City Court of Domestic Relations. 125 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Diabetes as a Way of Life. By T. S. Danowski, M.D., Renziehausen Professor of Research Medicine, University of Pittsburgh School of Medicine; Senior Staff Physician at Presbyterian-Woman's, Children's, Elizabeth Steel Magee, and Shadyside Hospitals of Pittsburgh; Consultant in Metabolism, Oakland Veteran's Administration Hospital, Pittsburgh. 177 pp. Price $3.50. Coward-McCann, Inc., New York. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlamert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

PSYCHIATRY AND THE CRIMINAL: A GUIDE TO PSYCHIATRIC EXAMINATIONS FOR THE CRIMINAL COURTS. By John M. MacDonald, M.D., Assistant Professor of Psychiatry, University of Colorado School of Medicine. 227 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1957.

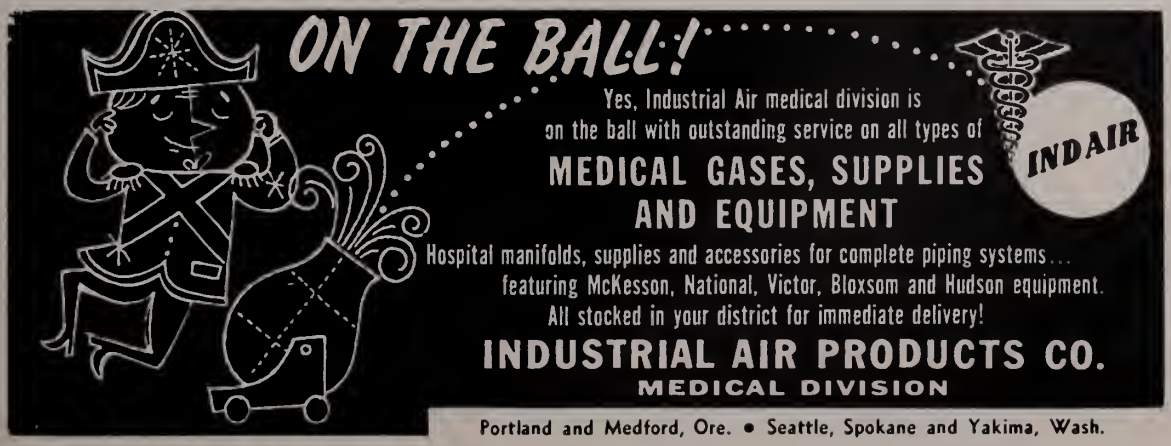
This book is reminiscent of the synopsis books that were so helpful before examinations in medical school. Essential facts are condensed; important things to remember are clearly and concisely stated. It is a kind of do-it-yourself book that could have been subtitled "How to be an Expert Psychiatric Witness." But it would do the author an injustice to leave the impression that this is his intent. Here is a brief but excellent presentation on the origins of crime, the character of the criminal, the complex factors in the attitude toward punishment, and the problem of stalemating prejudices that keep lawyers and psychiatrists from effective collaboration. The stimulating bibliography alone would inspire the interested reader to a do-it-yourself further inquiry into this challenging field.

Roger C. Hendricks, M.D.

THE RELATION OF PSYCHIATRY TO PHARMACOLOGY. By Abraham Wikler, M.D., Lexington, Kentucky. 322 pp. Price $4.00. The Williams and Wilkins Co., Baltimore. 1957.

Psychiatrists who look over this book will exclaim, "My God! What hath these pharmacologists wrought!" Pharmacologists who look over this book will exclaim, "My God! These psychiatrists are demolishing the science of pharmacology!" What Wikler does is to take a good look at the offspring of this misalliance. Practical evidence of the heartiness of the offspring and its portentous future is seen on every hand with the use of tranquilizer drugs for the anxious and hyperactive patient and the imminent psychic energizers for the apathetic and depressed patient. Important as these practical effects are, the revolution in thinking about mental illness is perhaps more fundamental. The general concept of a biochemical defect as the basic etiology in psychosis has been a stimulating and provocative hypothesis. Wikler's book is the first definitive

(Continued on page 542)





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(Continued from page 539)

review of this hypothesis and experimental work which has been done to validate or disprove it. It is, therefore, must reading for scientists in both psychiatry and pharmacology. It is not a book of dogmatic or empirical directions for the treatment of patients by the new miracle drugs. Rather, it is a book for the serious student who wants to see some order and rational systematic organization brought to the chaotic and heterogeneous flood of papers in this field.

James M. Dille, Ph.D., M.D.

AN ATLAS OF THE COMMONER SKIN DISEASES with 153 Plates. Reproduced by Direct Colour Photography from the Living Subject. Ed. 5. By Henry C. G. Semon, M.A., D.M. Oxon., F.R.C.P. London; Consulting Physician for Diseases of the Skin; Ex-President and Vice-President, Dermatological Section, Royal Society of Medicine. Revised with the Collaboration of Harold T. H. Wilson, M.A., M.D. Cantab., M.R.C.P., D.T.M., Dermatologist and Lecturer to Postgraduates, Royal Northern and Central Middlesex Hospitals. Colour Photography originally directed by the late Arnold Moritz, B.A., M.B., B.C. Cantab. 375 pp. Price $20.00. The Williams and Wilkins Company, Baltimore. 1957.

The fifth edition of this Atlas by English authors presents 153 excellent color plates of most of the more common dermatoses. Excellent paper has helped to make reproductions of the diseases very good. Only in a few instances have the authors strayed from the intent of the text by inclusion of rare disorders.

In the new edition as well as previous printings, the authors have made no attempt to classify dermatologic disease; the various entities are presented in alphabetical order. In this regard, some confusion results as the English background of the authors is manifest by variation in nomenclature from that of American.

Many common features of the disorders are well covered in a concise manner in the text material. However, as in past editions, space is wasted recounting details of the cases presented in the colored plates. Finally, the attempts to give therapy of each entity are weak. Much of the therapy is in need of modernization.

Conciseness of presentation and excellence of illustration are the best features of this presentation to both the student and the physician.

Robert A. Pommerening, M.D.

INTRODUCTION TO ANESTHESIA: PRINCIPLES OF SAFE PRACTICE. By Robert D. Dripps, M.D., Professor and Chairman, Department of Anesthesiology, Schools of Medicine, University of Pennsylvania; James E. Eckenhoff, M.D., Professor of Anesthesiology, Schools of Medicine, University of Pennsylvania; and Leroy D. Vandam, M.D., Clinical Professor of Anesthesia, Harvard Medical School. 266 pp. Line drawings by Leroy D. Vandam, M.D. Price $4.75. W. B. Saunders Co., Philadelphia, 1957.

The authors present an elementary approach to the various aspects of practical anesthesia which appears to represent a distillate of the philosophy of teaching anesthesia at the Hospital of the University of Pennsylvania. Organization of the book is somewhat different than the usual since the sections are divided into the preanesthetic period, the day of anesthesia, during operation, the postoperative period, and some special topics. It seems to be of particular value in providing an approach to anesthesia for the student, intern and neophyte resident. In addition, some more-experienced individuals will find it interesting and stimulating because it highlights the distinctive differences in philosophy espoused by the Pennsylvania group. Succinct descriptions are presented of inhalation, intravenous, spinal and local techniques of anes-

(Continued on page 545)



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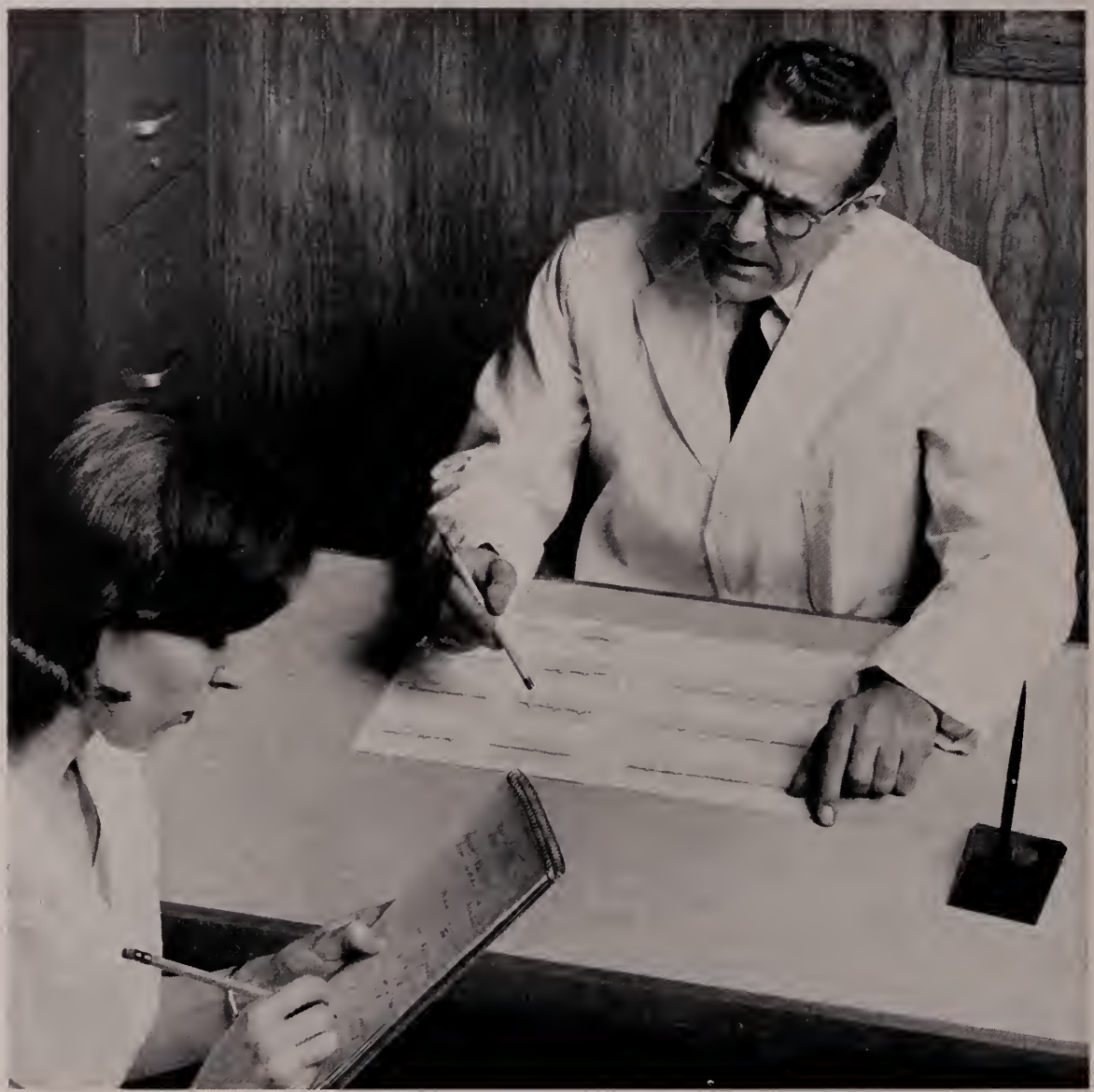
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(Continued from page 542)

thesia. A number of potential complications are well presented. Special topics include cardiac resuscitation, principles of pediatric anesthesia, anesthesia for outpatients, obstetric anesthesia and infant resuscitation, management of narcotic poisoning, and fundamentals of inhalation therapy. Selected references are suggested at the end of each chapter so that the reader may, if he so desires, explore in more depth the material which is offered here in introductory form.

Lucien E. Morris, M.D.

MODERN SEX LIFE. Rev. Ed. By Edwin W. Hirsch, M.D. 160 pp. Price $.35. Signet Book published by New American Library, New York. 1957.

This is a presentation of the author's concept of sexual dysfunction, which he has gleaned from many years of practice of sexology and urology, and a condensation of two other books, "Modern Sex Life" and "Sex Power in Marriage." He presents sexual relationships in a straight-forward, and at times blunt, manner and many of the concepts presented are healthy and practical. These concepts, however, are interlarded with the author's personal opinions, criticisms, and at times resentful discussions of the psychologic concepts current in medicine concerning the importance of emotional development as related to sexual activities and capacities. He presents an unscientific and biased concept of psychologic principles and at times evidences inadequate knowledge of these matters to discuss them reasonably. These facts detract much from the benefit of the book to those who are seeking instructions or knowledge useful in their sexual adaptation and might even act as a detriment to individuals who are anxious and have emotional problems. For this reason the book cannot be recommended for newsstand distribution or for use as a manual by physicians in discussing sexual adaptation with patients.

William Y. Baker, M.D.

FOOT TROUBLES. By T. T. Stamm, F.R.C.S., 122 pp. Illustrated. Price $4.75. Philosophical Library, Inc., New York. 1957.

This little book is designed to be read by lay personnel and by medical ancillary personnel rather than by the physician or surgeon. The reader will need to have at least some basic medical knowledge which he is able to understand, however. In the ten chapters are discussed: basic foot structure, common foot disorders. differential diagnosis of foot pains, and choice of foot wear. A description of foot exercises and a very brief discussion of other conditions affecting the foot are presented also.

The author takes a common-sense viewpoint in his various discussions, and covers many subjects in a superficial manner. Treatment is mentioned in a general manner.

The practitioner would benefit by reading this, in getting a bird's-eye view of normal foot disabilities.

J. Irving Tuell, M.D.

PRACTICAL CLINICAL CHEMISTRY: A GUIDE FOR TECHNICIANS. By Alma Hiller, Ph.D., Associate Attending Biochemist in Charge of Clinical Chemistry, The Presbyterian Hospital of the City of Chicago; Associate Professor of Biological Chemistry, University of Illinois College of Medicine, Chicago, Ill. 265 pp. Price $6.50. Charles C Thomas, Springfield, Ill. 1957.

This book is essentially a laboratory manual giving one procedure for performing each of a number of

(Continued on page 547)

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(Continued from page 545)

determinations. There is a 12-page introductory chapter on General Laboratory Procedures, an 11-page chapter on Standard Solutions of Acid and Alkali, and a 9-page chapter on Photometry. The next 161 pages contain 26 chapters, each one carefully describing the determination of one of 20 substances in one or more types of specimen. Each chapter has sections on reagents, procedure, and calculation as well as a final outline for the determination. The outlines are reprinted in the back of the book as a separate group of perforated pages which may be removed for ready reference.

In general, the methods given are well chosen, although the originators of the methods are seldom identified and only a few general references are given for each determination. The procedures have been made as simple and fool-proof as is practicable. In this second edition, improvements and simplifications have been made in the determinations of bromsulfalein, cholesterol, icteric index, sugar, nonprotein nitrogen and uric acid.

This is not a textbook, for it contains very little theoretic material and it gives very little on the interpretation of the results. It is, as the sub-title suggests, a guide for technicians.

Lester D. Ellerbrook, Ph.D.

SURGICAL TECHNIQUE AND PRINCIPLES OF OPERATIVE SURGERY. Ed. 6, revised. By A. V. Partipilo, M.D., Clinical Professor of Surgery, The Stritch School of Medicine of Loyola University. Foreword by Alton Oschsner, M.D., William Henderson Professor and Director of the Department of Surgery, The Tulane University School of Medicine, New Orleans, Louisiana. 966 pp. 719 Figures containing 1235 Illustrations. Original Illustrations by W. C. Shepard and Hooker Goodwin. Price $20.00. Lea & Febiger, Philadelphia. 1957.

This is the sixth edition of a well-established text. The material recorded in the previous edition has been revised extensively and 38 new chapters have been added to cover the newer developments which have been brought within the realm of the surgeon. An amazing amount of material is presented in this one volume and it is exceptionally well organized.

Each chapter is concise and devoted to a specific topic. This makes the reading easier for the student and makes the book more valuable for a quick review of a specific problem. Although the title of the book is "Surgical Technique," each chapter also contains a pertinent review of anatomy, physiology and pathology as well as the clinical indications, contraindications and pre and postoperative care.

This book will be a valuable addition to the library of any student of general surgery. It covers in detail all the aspects presently included in that category and summarizes adequately the present concepts of cardiac and thoracic surgery. The authors and publisher are to be congratulated on this fine publication.

David B. Judd, M.D.

AIDS TO BACTERIOLOGY. Ed. 9. By H. W. Scott-Wilson, B.Sc., M.B., M.Ch. (Oxon.), Director of the Laboratories of Pathology and Public Health, London. 403 pp. Price $3.50. Bailliére, Tindall and Cox, London. 1957. Distributed by Williams and Wilkins Co., Baltimore.

This is one of some 48 books written by various English authors which together constitute what is called the Student's Aid Series. The material is well organized and carefully presented using a minimum of words. It is not a reference book, and yet contains pretty much everything desired in a condensed form. The book has been prepared for students attempting a review of the subject of bacteriology or preparing for an examination. As such it has fulfilled its job admirably. As a reference book for doctors using a medical library, it would definitely fall short.

C. L. Hoff, M.D.

(Continued on page 548)

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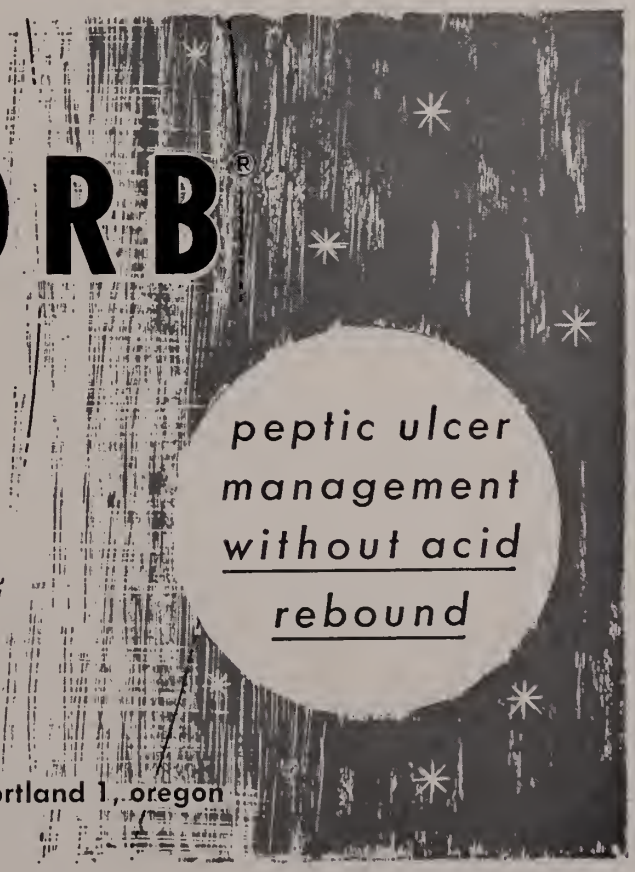
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(Continued from page 547)

A TEXTBOOK OF CLINICAL NEUROLOGY; WITH AN INTRODUCTION TO THE HISTORY OF NEUROLOGY. Ed. 8. By Israel S. Wechsler, M.D., Consulting Neurologist, The Mount Sinai Hospital, New York. 782 pp. Illustrated. Price $11.00. W. B. Saunders Co., Philadelphia. 1958.

Dr. Wechsler's text has earned a justifiable reputation for its accurate descriptions of clinical signs and symptoms of neurologic diseases, and the present edition maintains this quality. During the 30 years since this textbook first appeared, major advances have been made in understanding the basic physiology and biochemistry of neurologic and muscular diseases. It is disappointing that relatively little attention is given in this text to this newly acquired basic knowledge. Discussions, for example, of the pathogenesis of illnesses, such as myasthenia gravis or Wilson's Disease, are extremely limited and fail to include well-known experimental data, the knowledge of which is integral to the administration of rational treatment. Similarly, the static pathology rather than the kinetic physiologic is given most emphasis in the sections on vascular disease and there is no mention of the concepts of cerebral vascular insufficiency or of the potential uses of anticoagulant drugs in treatment. Omissions of this magnitude place serious limitations on the volume as a summary of current knowledge in the field of clinical neurology.

Fred Plum, M.D.

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY: Vol. II, Hormones in Blood, Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.-W.C., A.R.I.C. 416 pp. 74 illustrations. Price $9.00. Little, Brown and Company, Boston. 1957.

The Ciba Foundation (financed by, but otherwise independent of, the pharmaceutical concern), undertakes many activities "for the Promotion of International Cooperation in Medical and Chemical Research." This fine volume presents the 21 original papers of a colloquium held in London in February 1957, plus a transcription of the comments evoked from the 35 first-rank investigators attending. The reader first concentrates on the solid facts and guarded conclusions of a research article and then he is entertained and his understanding is broadened by the ensuing free-for-all discussion.

Hormones, by definition, are secretions carried in the blood, but their measurement there, although logical, has been technically unsatisfactory until recently. This volume, however, conforming remarkably well to its title, presents data on blood levels of nearly every internal secretion. Basic research is the central theme but clinical applications and implications are apparent throughout.

This is a superb book which will be of great value to anyone interested in any aspect of endocrinology. Others will find that their association of the endocrinologist with a 24 hour urine collection may soon be passe.

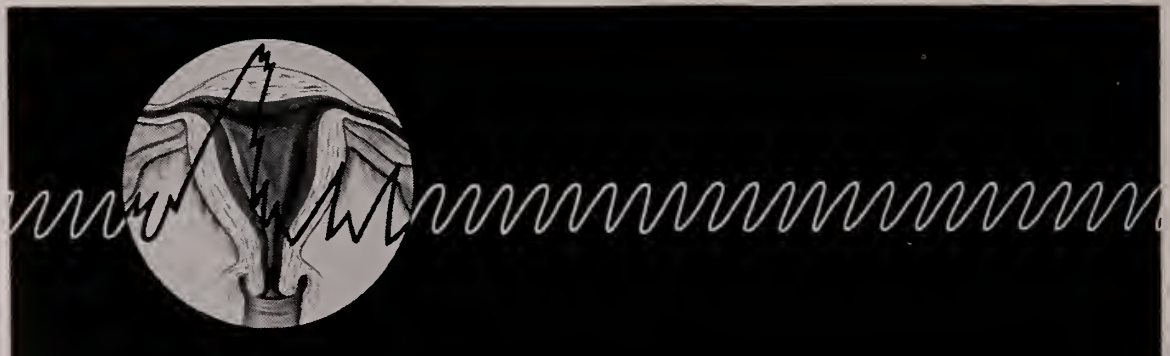
Neil J. Elgee, M.D.

THE HANGOVER: A CRITICAL STUDY IN PSYCHODYNAMICS OF ALCOHOLISM. By Benjamin Karpman, M.D., Chief Psychotherapist, St. Elizabeths Hospital, Washington, D.C. 531 pp. Illustrated. Price $9.50. Charles C Thomas, Springfield, Ill. 1957.

Certainly before alcoholism can ever be understood, it will be necessary for researchers to understand the symptoms of alcoholism as they are evidenced overtly by alcoholics. Dr. Karpman has made an extensive study of 14 patients, both men and women, in an effort to understand the psychodynamics of their hangovers. In so doing, he has com-

(Continued on page 553)

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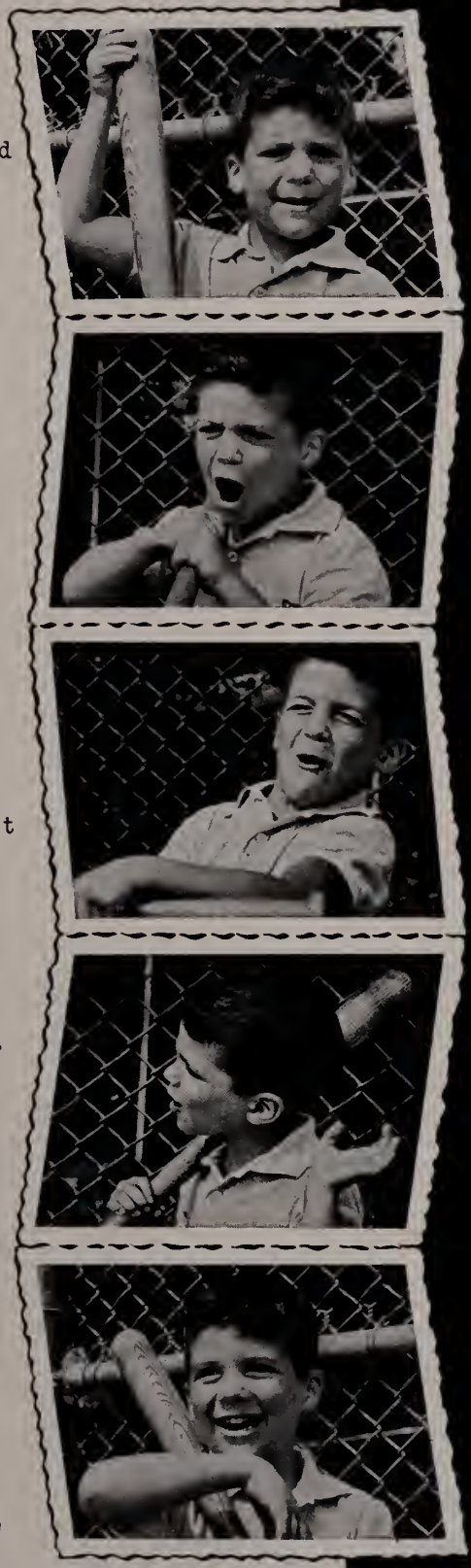
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Subsequently	Breast or formula feeding	12-20 ml.

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(Continued from page 548)

piled a vast amount of data that will be of great value to other researchers who will follow with studies on this subject. He is to be commended for studying this phase of alcoholism.

The author does fail to explain any causation of alcoholism other than his statement that "alcoholism will never be solved except in psychological terms." I do not find that the author has supported his position in this thinking, with the exception of showing the emotional involvement of his 14 subjects. Part of the emotions displayed by his subjects might well have been the effect of alcoholism rather than the neurotic causes, as the author suggests. Certainly Dr. Karpman is somewhat at odds with other researchers in the field when he applies a singular etiology to alcoholism. Present material available in research literature on alcoholism tends to support the idea of multiple etiology.

Later on, Dr. Karpman suggests that the "chronic alcoholic is invariably the victim of neurosis first and of alcohol second." He states that there is no such thing as the 'alcoholic cure,' but is pleased to report that stubborn cases of alcoholism have been cured by psychotherapy.

The author's implication that alcoholism is secondary to neurosis is a broad generalization hardly supported by 14 case studies. If this were true, alcoholics freed of their neurosis could drink in a controlled manner. It is generally accepted by all workers in the field that no true alcoholic can ever return to controlled drinking.

It is my opinion that all alcoholism does not of necessity develop from neurosis and that great care should be taken in preventing the application of any sweeping generalization to this extremely complicated and difficult disease.

Paul O'Hollaren, M.D.

BONE TUMORS: GENERAL ASPECTS AND AN ANALYSIS OF 2,276 CASES. By David C. Dahlin, M.D., Associate Professor of Pathology, Mayo Foundation, Rochester, Minnesota. 224 pp. Illustrated. Price $11.50. Charles C Thomas, Springfield, Ill. 1957.

This book is a concise outline of bone tumors, benign and malignant, as observed at the Mayo Clinic. In the interest of brevity, the author has used to advantage tables of classification, charts on age and skeletal distribution. The photos of roentgenologic evidence and photomicrographs demonstrate the classic pathologic entities. With this approach one could hardly say that differences of opinion would produce controversy. The bibliography at the end of the 24 chapters contains pertinent references. It is an excellent book for teaching.

Howard L. Richardson, M.D.

INTRODUCTION TO CLINICAL ENDOCRINOLOGY. By A. Stuart Mason, M.D., B.Ch. (Cantab.), M.R.C.S. (Eng.), M.R.C.P. (Lond.), Senior Lecturer, Medical Unit, The London Hospital; Consultant Physician, Department of Endocrinology, New End Hospital, Hampstead; Physician in Charge, Diabetic and Endocrine Unit, Oldchurch Hospital, Romford, Essex. 192 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1957.

This book is an introduction to endocrinology written primarily for the medical student or recent graduate. The author has attempted to present clinical endocrinology in terms of applied physiology. The book contains no illustrations. In aiming at coherence and simplicity he has sacrificed full discussion of alternative views and omitted references to the literature. A concise account of endocrine diseases as well as tests for investigating endocrine dysfunction are clearly outlined. This book can be recommended for the beginner in the endocrine field but not for the specialist.

Maurice M. Burkholder, M.D.

(Continued on page 554)

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(Continued from page 553)

PRACTITIONERS CONFERENCES. Held at the New York Hospital-Cornell Medical Center, Vol. 6. Edited by Claude E. Forkner, M.D., Professor of Clinical Medicine, Cornell University Medical College. 378 pp. Illustrated. Price $6.75. Appleton-Century-Crofts, Inc. New York. 1957.

This volume details the blow-by-blow accounts of panel discussions on 15 widely varied subjects, including trichinosis; cancer of the thyroid, prostate, esophagus, lung and bone; dermatophytosis; poison ivy; endometriosis and gout. It is more a reference library book than a book for an individual to covet.

Professor Forkner, the editor and moderator of the panel, is able to keep each panel on the track without intruding. A perusal of this volume would be of value to anyone who is assigned to a panel on any topic. Each subject is handled well, but I personally prefer to read straight narration rather than drama script style that is required in reporting a conference.

It is unfortunate that the reader is not given an opportunity to see the slides that are mentioned repeatedly. It is rather frustrating to read about them and not see them.

This, then, is a reference book that would be of value as such.

Bernard P. Harpole, M.D.

HOSPITAL ACCREDITATION REFERENCES. 136 pp. Price $3.25. American Hospital Association, Chicago. 1957.

This 132 page reference booklet summarizes the essential elements of the five publications of the Joint Commission on Accreditation of Hospitals. These consist of the "Standards for Hospital Accreditation," the "Bulletin of the Joint Commission on Accreditation of Hospitals," the "Survey Report" forms, the "Model Medical Staff Bylaws, Rules and Regulations," the "Bylaws of the Joint Commission on Accreditation of Hospitals," and selections from the correspondence of the Commission, which serves as effective interpretive material for the questions which arise most frequently.

This manual, used as a reference by hospital administrators, trustees, heads of services, and committees, should help greatly in explaining the very worth-while but often misunderstood goals of the Joint Commission.

Rodney B. Hearne, M.D.

THE SPINE JACK OPERATION FOR SCOLIOSIS. By H. Leslie Wenger, M.D. 86 pp. Illustrated. Complimentary. Published by Dr. H. Leslie Wenger, 44 Gramercy Park North, New York 10, N.Y. 1957.

The author briefly mentions various types of treatment used in the care of curvature of the spine (scoliosis). He mentions a supposedly widespread pessimism for these methods.

The spine jack operation is described. It seems obviously to be used in single curves. A long paravertebral incision is made on the concave side. Two inches is excised from each of several ribs. The transverse processes are excised and the intercostal bundles ligated and divided. An attempt is made to reflect the parietal pleura intact. The intercostal arteries are usually ligated near the aorta. Heavy screws are turned into a vertebral body above and one below. In young children the screw may be placed into the intervertebral disc if the vertebral body is soft. A turnbuckle of metal is attached at each end of the screws by a cup-shaped housing, permitting rotation movement only. The turnbuckle is screwed open to lengthen it and attached by a cotter pin. X-ray re-check is made. The chest is closed with draniage for a few days. The apparatus is left in.

Fifteen case reports are given. The longest case under treatment was four years. Numerous radiographs are presented. Complications are discussed.



A mortality of 3 patients in 49 operations (18 of these were spine jack cases) is mentioned. The radiograms show variable but considerable decrease in the curves.

The procedure and the method of treatment for structural scoliosis, appears to be formidable and heroic. The mortality rate alone would make its use or choice uncommon as a substitute for the Risser localizer plaster and spinal fusion method. The knowledge accumulated regarding all phases of scoliosis is extensive. If the patient appears early, if he is studied and photographed, and if various x-ray studies—including standing views—are recorded and preserved for periodic comparisons, serious increase will be detected in time. Plaster can usually be used with the patient ambulatory. In place of being in the hospital for one year as the author states, most patients are able to be ambulatory in about one week after each stage of fusion, and to leave the hospital soon thereafter.

Therefore, the advantages for the spine jack operation do not justify the risk.

D. G. Leavitt, M.D.

THE NEUROSES AND THEIR TREATMENT. Edited by Edward Podolsky, M.D., Brooklyn, New York. 555 pp. Price $10.00. Philosophical Library, New York. 1958.

The reader of this book will be somewhat surprised not to find it a textbook in the accepted sense, as the title suggests, but rather a compilation of recent papers on the vast subject of neuroses.

The areas covered range from anxiety in infants to emotional problems of the adult, from pharmacotherapy to psychosurgery, and from psychoanalysis to other psychotherapeutic methods of treating the minor emotional illnesses. Several of the papers included in this text are merely reports on extensive research.

Due to the many contributors to this volume there is some unavoidable repetition of subject matter but this does not detract from the value of this collection; on the contrary, it affords the reader the latest specific knowledge as well as a variety of views on current psychiatric problems. It is really remarkable what wealth of material is discussed under 37 headings. The editor endeavored to bring into focus with his choice of articles—and he was eminently successful in his effort—a representative cross-section of today's thoughts on the treatment of neuroses. No doubt this book will be a definite and worth-while asset to any medical or psychiatric library.

Irwin Wirth, M.D.

TUMOR SURGERY OF HEAD AND NECK. By Robert S. Pollack, M.D., Clinical Instructor in Surgery, Stanford University School of Medicine; Clinical Instructor in Surgery (Oncology), University of California School of Medicine. 101 pp. 49 illustrations. Lea & Febiger, Philadelphia. 1957.

The purpose and scope of this book are well described in the author's own introduction. He refers to this 94 page volume as one which deals primarily with the art of head and neck surgery, since it describes only the anatomy and the technique of surgery of tumors of the head and neck. His purpose is well executed. The author assumes that those interested in this field are familiar with the basic concepts of tumor surgery, the anatomy and physiology of the head and neck, and also the pathology of the lesions described. He merely outlines his rationale and technique in the performance of the surgical treatment of such tumors.

Without attempting to resolve certain controversies that exist in the treatment of some of the tumors in this region, the author describes not only the common lesions of the oral cavity, lip and tongue, but also includes the treatment of tumors of the salivary glands, thyroid gland, and paranasal sinuses. The indications for hemimandiblectomy and radical neck dissections are concisely presented, although perhaps

(Continued on page 556)

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(Continued from page 555)

somewhat dogmatically. Nonetheless, the reader is left with a feeling of security in that a definite stand has been taken and accurate description of the technique has been presented. Good diagramatic illustrations accompany the text. A separate chapter deals with the old problem of the role of radiation therapy in the treatment of these tumors. I felt that this section was especially appropriate and well written.

This book is an excellent volume for the general surgeon who does surgery of the regions under discussion.

Sherman W. Day, M.D.

FUNDAMENTALS OF ELECTROCARDIOGRAPHY AND VECTORCARDIOGRAPHY. By Lawrence E. Lamb, M.D., Director of Cardiology and Chief, Department of Internal Medicine, Air University School of Aviation Medicine, USAF, Randolph Air Forco Base, Texas. 142 pp. Illustrated. Price $9.50. Charles C Thomas, Springfield, Ill. 1957.

Having attended a series of lectures recently on vectorcardiography, I was very much interested in reviewing this book. Although only 138 pages in length, I found it very time-consuming but I have been amply rewarded; in fact, sufficiently so to order a copy, partly to add a book of quality to my library and partly because it is a book that will be useful for reference and review while interpreting electrocardiograms.

I am convinced that the vector principles are basic to the science of electrocardiography just as the other basic sciences are to the various fields of clinical medicine. However, one may read electrocardiograms with considerable success without a background knowledge of vector principles just as one may recognize and interpret a photograph without a knowledge of the science of optics. Because an important part of clinical electrocardiography has to do with disorders of rhythm and because electrocardiographic patterns of myocardial infarction can be learned easily in a short time, I would reserve this book for the clinician who has an unusual interest in the subject and not for those whose interest is more general.

Robert F. Foster, M.D.

THE POSTOPERATIVE CHEST: RADIOGRAPHIC CONSIDERATIONS AFTER THORACIC SURGERY—Publication II in The John Alexander Monograph Series on Various Phases of Thoracic Surgery. By Hiram T. Langston, M.D., Clinical Associate Professor of Surgery, University of Illinois College of Medicine; Anton M. Pantone, M.D., Clinical Assistant Professor of Radiology, University of Illinois College of Medicine; and Myron Melamed, M.D., Clinical Assistant Professor of Radiology, University of Illinois College of Medicine. 228 pp. Illustrated. Price $8.00. Charles C Thomas, Springfield, Ill. 1958.

This second publication in the John Alexander Commemorative Series covers the problems of interpretation of the changes arising in the postresection chest. The temporal relationships and follow-up are properly woven into the interpretive paragraphs. A long and excellent section on the anatomic rearrangement of lobes and segments following various intrathoracic procedures is included, and its presence encourages accurate anatomic evaluation of postoperative changes, a matter of utmost importance in the management of these patients.

Here, as in most attempts at reproduction of radiographs, the film cannot be printed in sufficient detail to satisfy the analytic observer. Frequently the line drawings bring out changes impossible to see in the film as it is reproduced. Perhaps more space devoted to the film itself and less to the line drawing would have minimized this problem. A further objec-

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tion is the lack of consistency in symbols used for air and fluid in the line drawings.

It is hard for me to see exactly to whom this monograph is directed. Reproduction of the films cannot be made in sufficient detail to satisfy the surgeon doing tuberculosis resection surgery regularly and those who are not so involved will rarely find need for such a publication. Perhaps its greatest benefit is to reassure the thoracic surgeon that he is not the only one with troublesome postoperative problems.

Robert C. Coe, M.D.

HUMAN BIOCHEMISTRY. Ed 5. By Israel S. Kleiner, Ph.D., Professor, and Director of the Department of Biochemistry, New York Medical College, and James M. Orten, Ph.D., Professor of Physiological Chemistry, Wayne State University College of Medicine, Detroit, Michigan. 808 pp. 94 Text Illustrations and 5 Color Plates. The C. V. Mosby Company, St. Louis. 1958.

I am not quite clear as to the function of books such as this. In the olden times when I taught chemistry, publishers hopefully flooded me with texts on General Science, and Household Chemistry. One of the former had a discussion of electric toasters. It said there are two kinds of electric toasters, "vertical," and "horizontal;" and it gave pictures of each. That was all.

This book is filled with similarly interesting information. You will learn that glycerine has many uses in industry; and that when treated with nitric acid it forms nitroglycerine (formula given) which explodes and dilates bloodvessels.

You will leran that floating soap floats because they put air in it, and that soap does not lather well in hard water, at least till it has precipitated the calcium and magnesium.

You will learn that dairy milk is of uniform quality because it comes from many cows; that most mothers can nurse their children adequately; that young mothers secrete more milk than old ones because they are younger; that the residue from churning is called "buttermilk;" that lactalbumin and lactoglobulin are "typical albumin and globulin, respectively;" and that a soft curd is "undoubtedly" more easily digested than a hard curd. (No reason or evidence for the last statement, or for dozens of similar statements, is given.)

You will learn there is something called a "sedimentation rate" which may be elevated, especially in septicemia and tuberculosis, and is best reported as "normal," "fast," "very fast," or "slow;" and it is probably increased by cholesterol and its esters and decreased by phospholipids.

You will meet a lot of "scienitfic" terms, names, and formulas with which you mav or may not be already familiar, but which you will know no more about for having met them. You will not need to bother about energy relations, or any kind of mathematics; or even feel that you have to understand anything. You could not if you tried.

All in all, this book might best be described as a painless short-cut to wisdom, and can be recommended to all who are interested in such.

Frederick B. Exner, M.D.

PSYCHIATRY IN THEORY AND PRACTICE. By Beulah Chamberlain Bosselman, M.D., Professor of Psychiatry, College of Medicine, University of Illinois, Chicago. 150 pp. Price $4.00. Charles C Thomas, Springfield, Ill. 1957.

As a student I was impressed by Dr. Bosselman. I have also been impressed by her book. It is concise, clearly written, and relatively free of jargon. This book is based on a series of tape recorded lectures given to the first year residents at the University of Illinois Neuropsychiatric Institute. To cover the major theories of Freudian psychiatry in the space of 140 text pages and to keep the writing interesting

(Continued on page 559)



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genitourinary infections
miscellaneous infections

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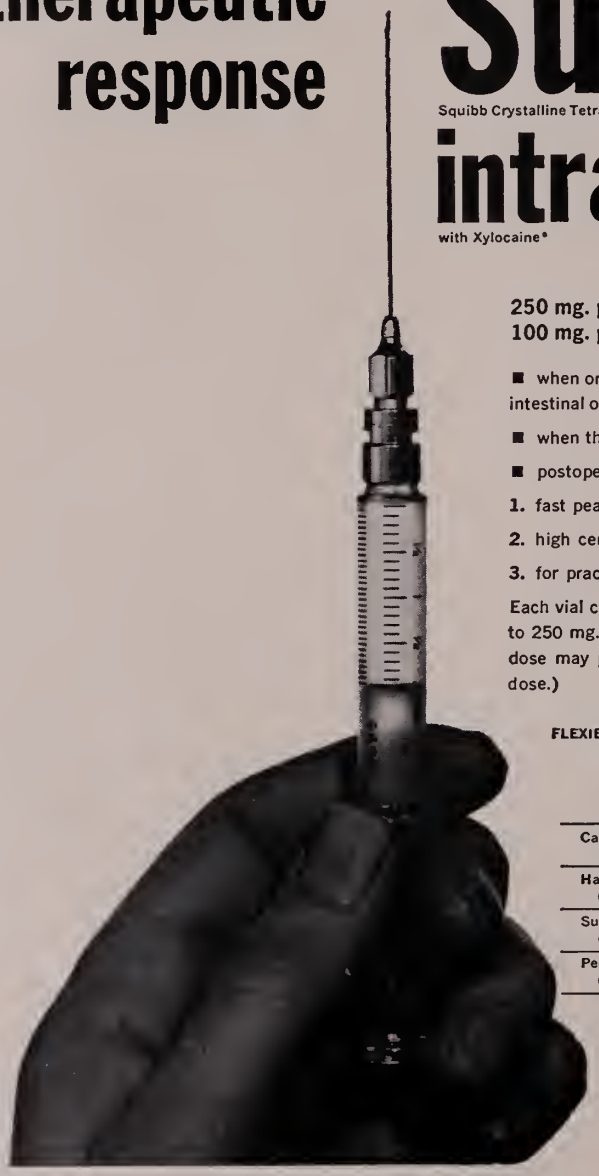
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(Continued from page 557)

requires a good deal of skill. Students should find this of great help in revealing in a short time the basic theories. I doubt that anyone in general practice will find this really helpful in administering to his patients. Anyone whose interests lie in this direction will find this book occasionally provocative and well worth the modest price.

Robert H. Tinker, M.D.

CIBA FOUNDATION SYMPOSIUM ON THE CHEMISTRY AND BIOLOGY OF PURINES. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Cecilia M. O'Connor, B.Sc. 327 pp. Illustrated. Price $9.00. Little, Brown and Company, Boston. 1957.

There is more than philosophic evidence to support the concept, increasingly popular in the past few years, that the key to an integrated understanding of a number of additions to biologic knowledge, which seem at first to be unrelated, (e.g., chemical inhibition of malignant growth, antibiosis, carbohydrate metabolsim, etc.) may eventually be found to exist in a further understanding of the chemistry of the pteridine and purine compounds and their relatives. From the clinical standpoint, probably the most startling developments in this field have been those related to the discovery of the anti-mitotic action of certain of the purine inhibitors, or "competitors," (e.g., the anti-leukemic action of 6-mercapto-purine), the early studies on puromycin (an antibiotic agent with effective inhibitory action against protozoan and multi-cellular organisms, making it possibly of value in the treatment of amoebiasis, and particularly trypanosomiasis), and the work with vitamin B_{12}, and the four naturally-occurring purine analogues thus-far discovered.

The present volume is composed of the collection of papers presented at the symposium on "The Chemistry and Biology of Purines," held in May 1956, under the sponsorship of the Ciba Foundation. From the standpoint of material presented and discussed, the organization of this conference appears to have directed the combined efforts of the biochemical and synthetic chemical (through as thorough as possible a study of many structurally-related compounds) toward an investigation of the probable interrelationship of the biologic actions of certain of the purine-type compounds, which have recently gained increased general interest.

Matrial incorporated in this volume is of such academic, and highly-technical nature, as to make it laborious and uninteresting reading for the average, busy physician in private practice. It contains no "useful" information for direct application to common problems of diagnosis or therapy. The inferences for relating this information to concepts in diagnostic and therapeutic problems are nonetheless immense; although they must be derived by the reader for himself. At the same time, this technical and academic aspect of this publication certainly make it esential reading for the physiologist or biochemist.

William R. Pace, Jr., M.D.

PHARMACOLOGY AND THERAPEUTICS—Textbook for Students and Practitioners of Medicine and Its Allied Professions. Ed. 3. By Arthur Grollman, Ph.D., M.D., Lecturer in Pharmacology and Toxicology, Medical Branch; Professor and Chairman of Department of Experimental Medicine, Southwestern Medical School, University of Texas. 1046 pp. 192 illustrations. Price $12.50. Lea & Febiger, Philadelphia. 1958.

In the preface to the third edition, Dr. Grollman states that an attempt has been made to "satisfy the experimental pharmacologist whose interest lies in the broad theory of pharmacodynamics, the student who requires a basic course which will permit him to use drugs rationally and effectively, and the empirical practitioner who wishes to keep abreast of developments in therapeutics." The text is organized into sections devoted to drugs which act mainly on specific organ systems. At the end of each chapter all the appropriate preparations included in the United States and British Pharmacopeias are listed with descriptions of each.

This text would seem to be most appropriate for the student who can obtain a lucid and succinct outline of specific drug action and indications. Because of the rapidity with which modern horizons in therapeutics expand, a single moderately sized text cannot be everything. For this reason the practitioner may find specific information he seeks too condensed for anything but quick reference. It is not, then, intended to be nor is it a complete outline of treatment as encountered in general practice. Within these limitations this book is recommended as a basic text on the intelligent use of drugs.

Alvin Katsman, M.D.

New Mexico Doctors Take Stand on Welfare Problem

The New Mexico Medical Society, with a membership of 509 physicians, has been in the middle of a complex and controversial political storm during the last few weeks over the handling of the state's welfare program.

State President Samuel R. Ziegler reports that after long and heated debate and much publicity, the welfare department accepted the society's offer to render free medical care to welfare patients rather than accept a further reduction in payments from the welfare fund. The schedule originally accepted by physicians represented roughly one-fourth of a doctor's usual fee.

The doctors' offer came after the state's department of public welfare claimed that because of a gradual increase in the number of patients the medical pool fund, established in 1952 with state and federal money, was running dry. The fund is used to provide medical surgical, hospital, dental, and nursing care and drugs for welfare patients.

The department of public welfare wanted the doctors to reduce their fees. The doctors said "no" to that plan and, instead, offered to give free medical care. The welfare department agreed to accept the offer which is to be effective from Jan. 31 to June 30 at which time the physicians will meet with welfare department officials and review the experience.

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Clinical Meetings
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Oregan State Medical Society ..... **Sept. 3-5, 1958, Portland**
Pres., V. W. Miller, Salem Sec., M. H. Parratt, Portland

Washingtan State Medical Assaciatian .... **Sept. 14-17, 1958, Spakane**
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Idaha State Medical Assaciatian ..... **Sun Valley**
July 6-9, 1958 **June 14-17, 1959**
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Alaska Territarial Medical Assaciatian ..... **Fairbanks. May 15-17, 1958**
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Anchorage

Narth Pacific Saciety af Internal Medicine—Aug. 29-30, 1958
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Narth Pacific Saciety af Neuralagy and Psychiatry....April 11-12, 1958
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Pacific Narthwest Saciety af Pathalagists .... May 2-3, 1958, Partland
Pres., H. E. Taylar, Vancauver, B.C. Sec., J. E. Hill, Spakane

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May 23-24, 1958—Tacama
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Oregan Academy af General Practice ..... **Partland, Oct. 16-17, 1958**
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Tuesday (Sept. thraugh May), Henry Thiele's, Partland
Pres., G. Lyman, Partland Sec., P. Myer, Partland

Oregan Dermatalagic Saciety ..... **Partland, Secand Wednesday**
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Oregan Pathalagists Assaciatian—Secand Wednesday, Feb., Apr., Oct.,
Dec. — Partland
Pres., J. Minckler, Partland Sec., W. A. Haug, Partland

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University Club, Partland
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Oregan State Saciety af Anesthesialagists ..... **Partland, Third Friday**
(except June, July, Aug.)
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Partland Academy af Hypnasis ..... **Third Manday (Sept.-May)**
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Partland Academy af Pediatrics ..... **First Manday**
Pres., J. P. Whittemare Sec., L. H. Smith

Partland Surgical Saciety ..... **May 9, 10, 1958**
Pres., Russell Jahnsrud Sec., C. G. Petersan

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Seattle Surgical Saciety **1959**
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Spakane Surgical Saciety ..... **April 12, 1958**
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Tacama Academy af Internal Medicine **1959**
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Tacama Surgical Club ..... **May 3, 1958**
Pres., E. R. Andersan Sec., D. Staatz

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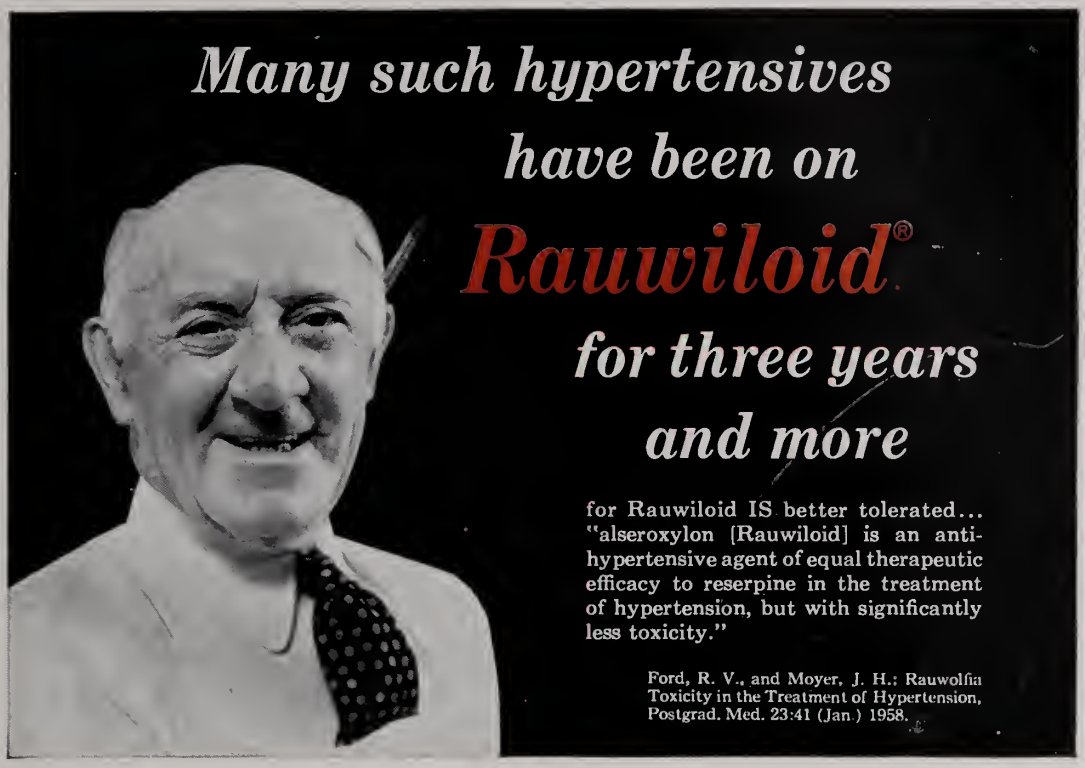
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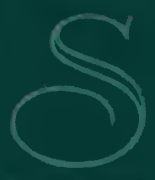
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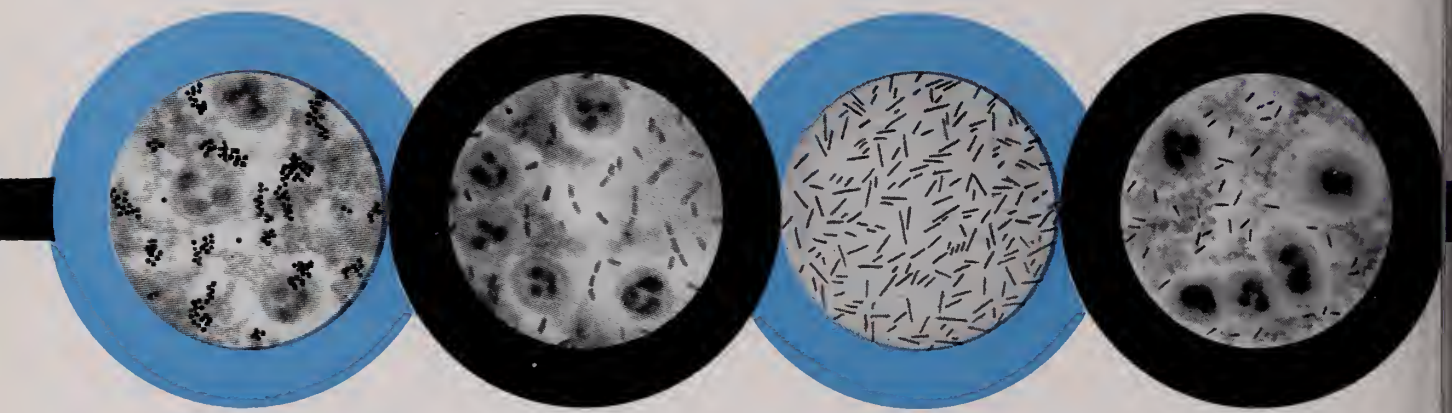
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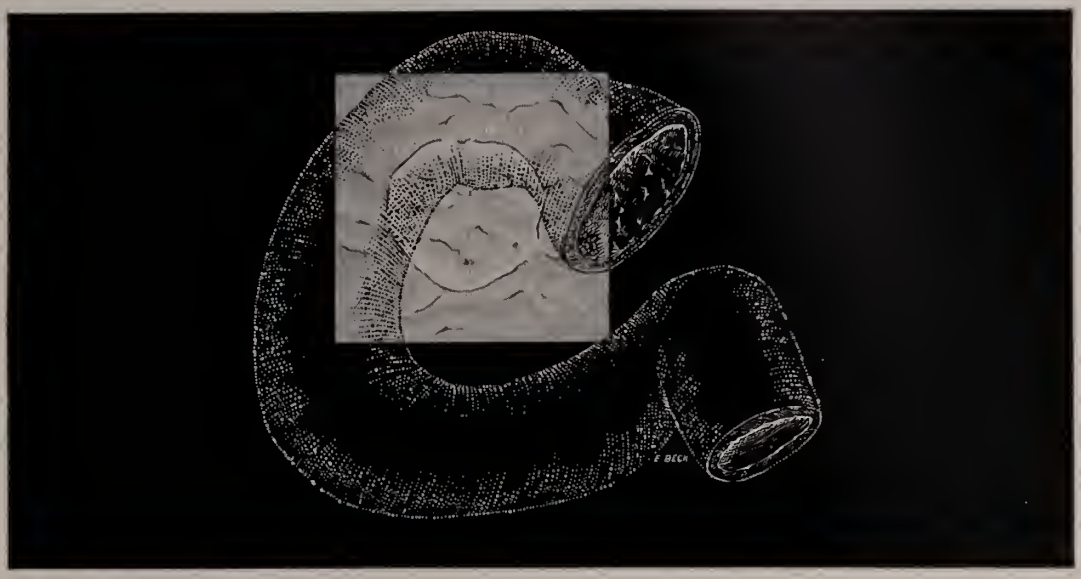
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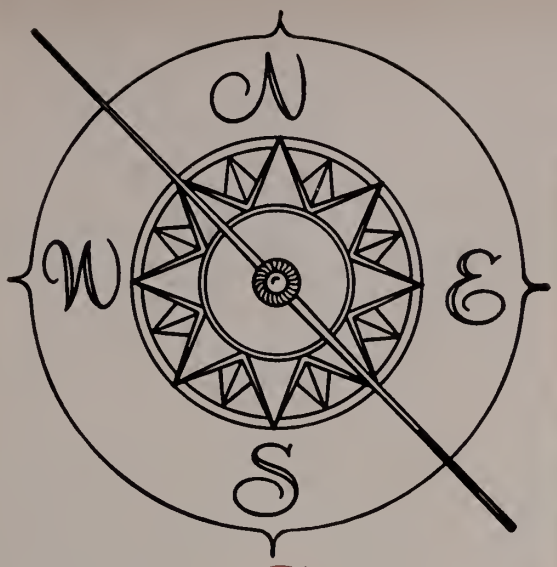
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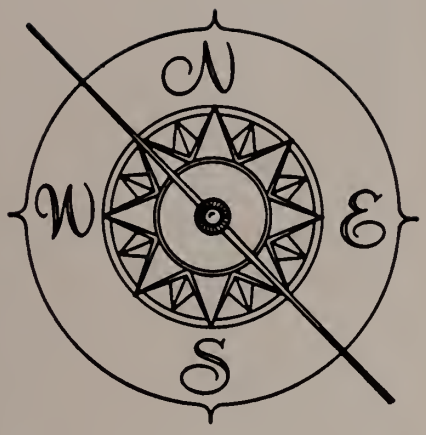
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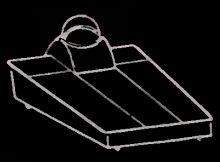
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1. Sc. Exhibit, A.M.A. Meeting, Dec. 2-6, 1957.
2. Sc. Exhibit, Mich. State Med. Meeting, Sept. 25-27, 1957.
3. Gadek, R. J.: Report 912:1957.
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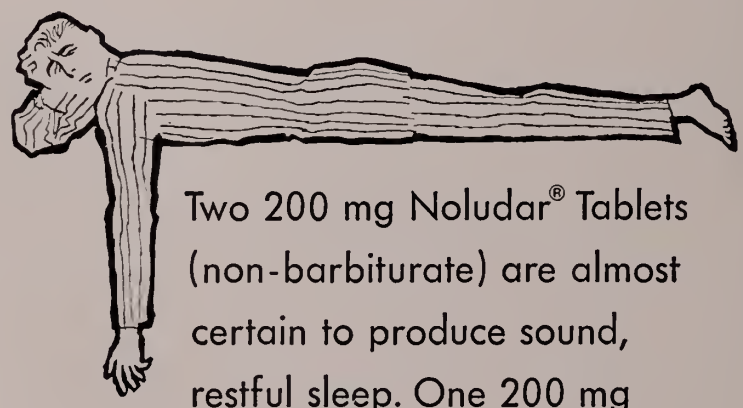
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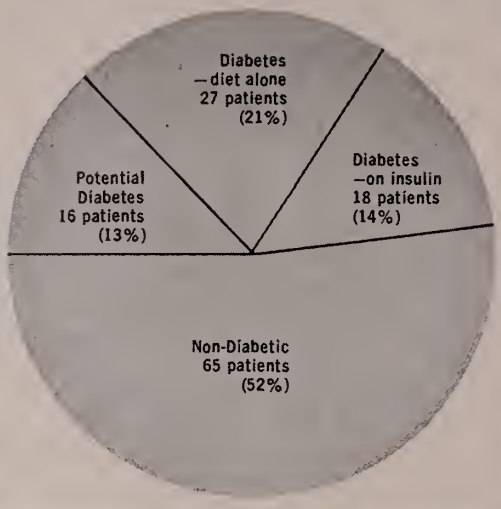
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*Murphy, R.: Connecticut M. J. *21*:306, 1957.

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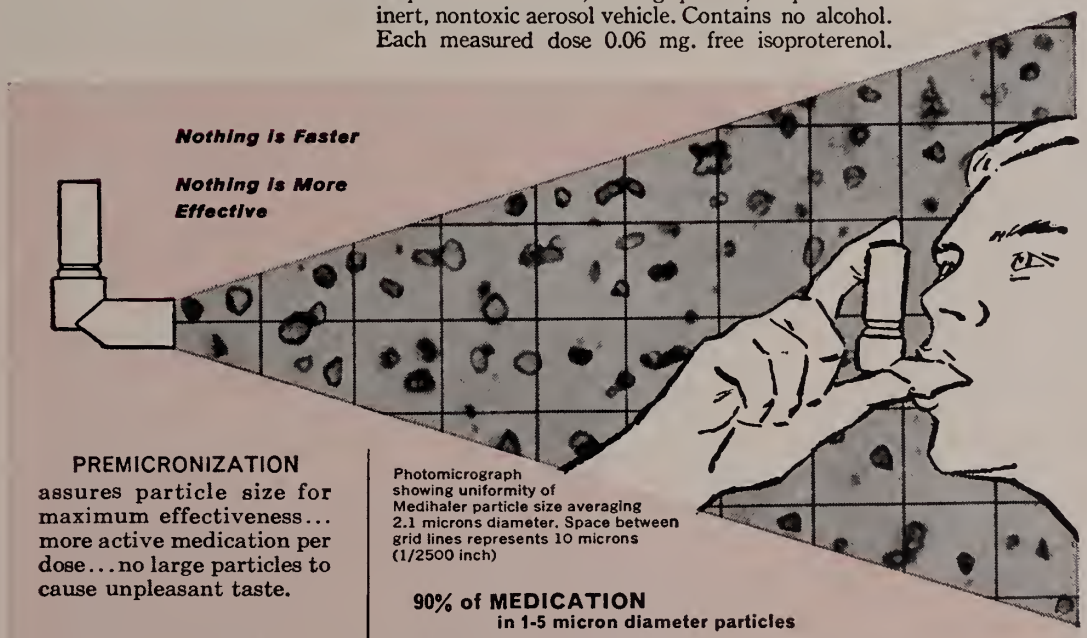
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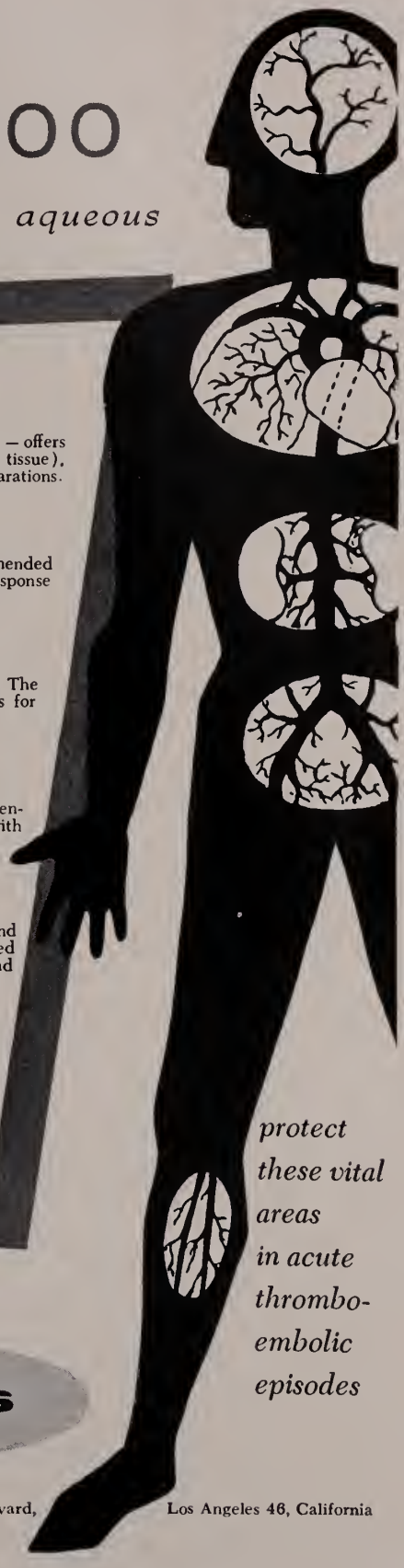
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CORRESPONDENCE

Correction Noted in CPC

Seattle, Washington

EDITOR, NORTHWEST MEDICINE:

In the clinical pathologic conference article on Fatty Metamorphosis of Liver in Pregnancy, which was published in the April 1958 issue of NORTHWEST MEDICINE, it was erroneously stated that John Codling was the attending physician. The undersigned served as consultant and lent a helping hand in cut-downs and transfusions.

Because of his first hand knowledge of the case, he was asked to discuss it at CPC.

Respectfully,
John W. Codling, M.D.

Pathology and Monopoly

Portland, Oregon

EDITOR, NORTHWEST MEDICINE:

Unfortunately, the position of the pathologist in a hospital practice is occasionally construed as a monopoly. This concept apparently arises through the essential geographic attachment of the practitioner and the hospital which establishes the institution as "his." Ordinarily no onus need be implied in such a relationship since the qualities of loyalty, intensity of interest, and competitive progress are engendered thereby. The idea becomes disruptive, however, when the pathologist's colleagues unthinkingly view this pattern as monopolistic. This leads to an unwitting alignment with the "hire-the-physician" movement as a means of "controlling" this tendency. It further permits league with certain hospital administrative forces who are distinctly interested in formulating nasty by-words such as "monopolistic practices." This unwelcome accolade is undeserved in hospital pathology where the pathologist has actual charge, and for the following valid reasons.

Perhaps no specialty group compares to pathology in the degree of consciousness of the stifling effects of true monopolistic practices. Almost invariably, for example, the following (or similar) statement appears in the con-

(Continued on page 586)



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(Continued from page 585)

tractual note between a pathologist and a hospital: (quote) "Doctor shall permit any member of the medical staff possessed of staff privileges in pathology to practice his profession in the pathology department—." This statement is no different than the regulations obtaining in any other major division in hospital practice and has added notes of guarantees that the quality of service by the attending pathologist be in line with current regulations. Pertinent also is the recommendation emanating as an action of the Executive Committee of the Oregon Pathologists Association: (quote) "It is recommended that a courtesy consultative pathologic service for hospitals be officially acknowledged whereby pathologists unrelated by staff appointment have an open invitation in any hospital to attend any patient for whom his services are requested by the patient or by the patient's personal physician. It is further recommended that no fee be imposed for this specific type of consultative courtesy." This last recommendation is engendered by the fact that a routine charge is ordinarily made by the pathologist or hospital and an additional consultative fee would be duplication.

In actual operation, any monopolistic tendency is less conspicuous in the Portland area than might be implied by the regulatory attention it gets. In one major hospital, for example, the activities pertinent to the monopoly point in question run about as follows: daily problem sessions on both anatomic and clinical material by four very independent staff-related pathologists and equally independent residents; weekly interinstitutional SOB-slide meeting at the medical school attended by representatives of at least six hospitals; weekly orthopedic slide consultation at the registry; 36 (in 1957) mailed consultations to national registries or authorities; over 100 personal visits by non-staff-related pathologists to the hospital for consultation; almost continuous daily slide exchanges in the immediate area; and regional and national reviews which serve as excellent consultative media. In these multitudinous interchanges no fee was ever levied beyond the routine charge and the patient and attending physician were assured through consultative devices of the most authoritative possible opinion on a national level. It is difficult to conceive of a less monopolistic practice nor one less adapted to monopolistic procedures.

Apart from hospital dominance and from the point of view of practice, alone, it would appear impossible for a pathologist to monopolize the practice of pathology (as any physician with a sink in his office will attest). It seems no more burdensome to regulate that tissues be reviewed by a pathologist than for EKG's to be read by an experienced EKG reader. As usual, the nub of the problem lies in a few pathologists whose vocal cords have not suffered the same restrictions in exercise as their wits. A single *I-have-spoken* attitude on the part of a pathologist does irreparable damage to the anti-monopolistic theme. It is essential that these vaporings be acknowledged as minor. Similarly, it must be made known that pathologists tolerate these people in the same way that other specialists carry their ragtag.

In summary, non-pathologist physicians are invited to recognize the peculiar tie between pathologist and hospital; to acknowledge the impossibility of specialty monopoly; to share the pathologist's aversion to area monopoly; to decry with the pathologist the *I-have-spoken* attitude; and to promote with the pathologist a good and equitable hospital relationship on the basis of private practice.

Sincerely,
Jeff Minckler, M.D.

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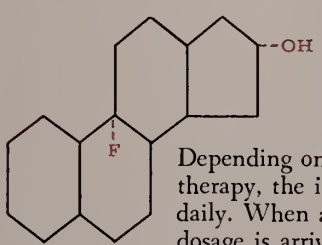
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 5
MAY, 1958

EDITORIAL

Forces Opposed to Private Practice

Forces tending to replace private practice by other systems are currently much stronger than those preserving it. If this situation continues, the only uncertain element is the length of time required to destroy private practice. Recent events indicate that the pace is accelerating.

Most important of these is action of Warren Draper, medical director of the welfare fund of the United Mine Workers. Trouble has been brewing in the mining areas for several years. Soon after Draper took control, he began to criticize work done for beneficiaries of the fund by private physicians. At the AMA meeting at Atlantic City in 1955 he claimed that physicians charged excessive fees and that many unnecessary operations were done. By that time he had begun to establish panels of approved physicians and tried to enforce a rule that no beneficiary could be admitted to a hospital without consent of one of the approved physicians.

Battle between Draper and the medical associations of the states within which the UMW Fund operates has been long and acrimonious. Draper has defied the medical associations and has maintained his panels. At the same time he has promoted the idea that he hires only the best doctors and uses only the best hospitals. Gradually the public has been led to believe that the individual private practitioner is inferior.

There is just enough truth in this propaganda to make it an effective weapon against private practice. No very effective force has been raised in opposition. Medical societies have been loath to weed out or otherwise control the few incompetent members whose performance gives Draper the opening he needs to build an empire.

No one can deny that there are physicians who are ignorant, incompetent or dishonest. Their numbers, however, have never justified the attacks made by Draper and others nor do they justify destruction of a system which has great merit.

Efforts of hospitals to establish themselves as centers for community medical service and to enter the field of corporate practice must not be overlooked. The American Hospital Association was not happy with the Iowa decision on such practice and is taking unmistakable steps toward its circumvention, not only in Iowa but throughout the country. Under direction of its Board of Trustees, the Hospital Association directed its legal counsel to prepare a statement on corporate practice. He obliged with monograph on the propriety of corporate practice. Summary of that report was carried in the December 1, 1957 issue of *Hospitals*, official journal of the American Hospital Association. The campaign continues. March 1958 issue of the same journal carries an editorial and several

articles promoting the idea of building the hospital outpatient department as a system of providing medical care.

Officials in governmental bureaus necessarily maintain a mass viewpoint in regard to medicine and seldom understand private practice. The millions given them to spend, therefore, represent a powerful force in developing systems of medical care other than private practice. Current annual expenditure by the Department of Health, Education and Welfare amounts to $646,830,000 and it is going up. More than a fourth of this amount is being spent where the force can be highly effective. The National Institutes of Health control research grants, many to medical schools, spending $189,796,000. Two-thirds of all college research is now supported by the Federal Government.

New legislation to increase spending on medical schemes and to expand social security is being introduced nearly every day Congress is in session. Dozens of such proposals are being considered. A recent example of the lot is one introduced by Representative Zablocki (D, Wis.) in March, to create a Bureau of Older Persons, "to achieve a retirement income sufficient for health *** older persons to receive adequate nutrition, preventive medicine, and medical care ***development of special courses in schools and departments of medicine, nursing, clinical psychology ***."

Senator Morse of Oregon has entered a bill which would amend the social security act to provide many of the benefits proposed in the Forand Bill, increase the wage base and rate for social security payroll taxes and increase social security benefits. Senator Neuberger, also of Oregon, has introduced a bill to increase spending for maternal and child health care from $16,500,000 to $25,000,000 and for hospital and medical care for crippled children from $15,000,000 to $25,000,000.

Another force destructive to the private practice of medicine has been the demagoguery of Paul Hawley who would arouse prejudice and passion by rhetoric and sensational charges to gain influence for himself and the organization he represents. The statements he has released to the press and the magazine articles he has helped prepare have done so much harm that physicians themselves have begun to believe that many members of their own profession are either dishonest or corrupt. A recent survey in the Northwest brought out the amazing fact that 20 per cent of physicians believe most other physicians are crooks.

With all these adverse influences, all these malevolent criticisms and all these proposals for systems to replace the private practice of medicine, it is no wonder that young physicians, now in training or just out, shun private practice believing that they should be employed in some kind of a panel system so that they would not be required to work more than 40 hours a week and could have Saturdays and Sundays off.

Nearly 30 years ago Ortega deplored the fact that Europe had been left without a moral code. It was not the amorality which disturbed him so much as the fact that the attitude toward life had become one of demanding all the privileges but accepting none of the obligations.

Unless those who believe in the private practice of medicine start accepting some of the obligations to preserve it, the forces aligned against it seem certain to prevail.

Antibiotic Danger

Against the life saving benefits of antibiotics it is now necessary to weigh the dangers. Undesirable reactions have increased as we have moved into annual utilization of these products in quantities measured in hundreds of tons. In some classifications of reactions, mortality rates have been as high as 50 per cent.

Much of this information was presented at Portland last month by Lowell Rantz, one of the

Sommer Memorial Lecturers who addressed the 43rd annual meeting of the University of Oregon Medical School Alumni Association. He gave particular emphasis to the problem of superinfection and the disaster which can follow in its wake.

Superinfection occurs when, during antibiotic treatment, a second organism, resistant to the antibiotic being used, invades and causes illness. In some of these superinfections, such as staphylococcal enterocolitis, the second infection may be much more severe than the first and it can be fatal rapidly. Likewise, staphylococcal pneumonia may develop during antibiotic therapy and produce death unless the physician is alert to the danger and alters therapy in time.

Two factors are responsible. One is the ability of certain organisms to develop resistant strains. The other is the natural sequence of events which follows elimination of any organism or group of organisms. Rantz explains this phenomenon by stating that Nature abhors a sterile surface as much as she does vacuum. While it may be possible to achieve elimination of organisms from the intestinal tract for a short time, the condition cannot be maintained. New, nonsensitive organisms move in to replace those eliminated and they flourish.

When a patient who has fever is treated with antibiotics, his temperature is apt to fall after about 48 hours. If this fall is followed in a day or two by significant rise in temperature, superinfection has occurred and serious outcome may be expected unless treatment is changed.

There are other classifications of undesirable reactions. A recent report[1] lists them as severe and not severe. Severe reactions included superinfection, anaphylactoid reaction, severe skin reaction, blood dyscrasia and angioneurotic edema with respiratory or cerebral involvement. Those considered not severe include angioneurotic edema and urticaria, other dermal lesions, serum sickness type of reaction, diarrhea and local moniliasis.

Survey by Welch *et al.* covered experience of 1,637 physicians, and 827 hospitals with bed capacity of 198,332. Period studied was from late 1953 to early 1957. Case histories in the study numbered 3,419. After elimination of incomplete records there remained 2,995 cases of which 1,925 were classified as not severe or non-life-threatening and 1,070 which were severe or life-threatening.

By far the largest number of severe reactions were anyphylactoid reactions and penicillin was responsible for nearly all of these. Deaths in this group followed intramuscular injection of penicillin alone or in combination with streptomycin or dihydrostreptomycin. Other than parenteral routes accounted for only 59 of 793 anaphylactoid reactions to penicillin. One followed use of a syringe contaminated with penicillin. A few cases occurred when a dose prepared for others was simply tasted and one woman had typical shock soon after starting to suck a penicillin troche. Anaphylactoid reaction followed other antibiotics in only 16 cases and most of these were result of streptomycin or dihydrostreptomycin. In the total of 809 such cases there were 74 deaths.

Superinfection was next in number of severe reaction cases. There were 107 of these and 74 were staphylococcal enterocolitis. An additional 25 cases of enterocolitis were encountered but the offending organisms were not identified. Of these 99 cases, 39 were fatal. One death followed pulmonary moniliasis.

There were 70 cases of severe skin reaction with 7 deaths. Blood dyscrasia appeared in 46 cases, of which 27 died. Angioneurotic edema with respiratory or cerebral involvement accounted for 38 cases and 5 deaths. Penicillin was the responsible agent in 80 per cent of all the cases studied and approximately 9 per cent of those who had reactions to penicillin were listed as fatalities.

Welch *et al.* estimate about 10 per cent of U. S. population as capable of becoming sensitive to antigens. Since few have escaped being dosed with penicillin in some form, there are in this country about 17,000,000 persons who are candidates for some grade of reaction to penicillin. Anaphylactic shock is the most likely type. Superinfection, most apt to follow tetracycline administration, has lower incidence rate but much heavier mortality when it occurs.

From these reports and warnings it can only be concluded that the antibiotics are far from harmless preparations. They have saved countless thousands of lives, many more thousands of days and a vast amount of disability. Against these benefits, it is necessary to weigh the potentialities for harm when these products are prescribed. Unnecessary use cannot fail to produce unnecessary disability and unnecessary death. •

1. Welch, H., Lewis, C. N., Weinstein, H. I., and Boeckman, B. B., Severe reactions to antibiotics: a nationwide survey, Antib. Med. & Clin. Therapy 4:800-813, (Dec.) 1957.



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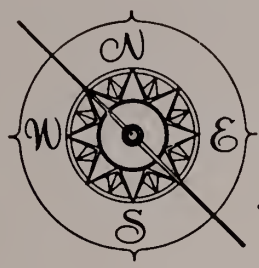
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ORIGINAL ARTICLES

Bile Peritonitis

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Extravasation of bile into the peritoneal space is an extremely serious clinical problem. It has been estimated that 50 to 60 per cent of patients die during the acute stage of the disease,[1] and those who are fortunate enough to recover, frequently are left with serious sequelae which are difficult to manage and often lead to long periods of convalescence and disability.

Appreciation of these factors has stimulated considerable experimental work in an effort to understand better some of the basic pathologic aspects of the disease. These studies have been contradictory in many respects, however, and there still remain many unanswered questions regarding toxicity, physiologic effect and lethal properties of free bile in the intraperitoneal space. Furthermore, there have been relatively few reports dealing with the clinical aspects of the disease and, generally speaking, bile peritonitis has not received the attention or sustained interest that peritonitis originating from other causes has been afforded.

Several factors may be responsible for this. Among these are: a) Belief that the pathologic process of bile peritonitis is similar to that which operates in other types of peritoneal infection and thus deserves no special emphasis. b) Widespread use of antibiotics has resulted in a false sense of security relative to the potential hazards of leaking bile. c) Misconception that bile peritonitis is a rare condition which is unlikely to be seen by the average practitioner. d) The feeling that postoperative bile peritonitis is a surgical complication which carries the stigma of poor surgical technique or faulty postoperative care.

The observation and care of a number of patients who have suffered this affliction serves as the background for this report. In consideration of the problems encountered in their care, a brief review of the subject appears to be justifiable, not only as a means of obtaining a better understanding of the interesting aspects of the disease, but also to re-emphasize some of the basic but often neglected principles involved in its surgical management.

Etiology

The term *bile peritonitis* must be qualified, for sake of this discussion, to represent the phenomenon occurring within the peritoneal cavity as a result of the outflowing of bile from some point directly along the biliary tree. Excluded, therefore, are the peritoneal contaminations resulting from perforated abdominal organs in which other chemical or bacterial factors play a role of equal or greater importance than that of bile alone.

Bile may escape the confines of the biliary tract and flood the peritoneal space in a number of ways (see table 1), the most common probably being that which follows trauma to the liver or extrahepatic collecting system. Upper abdominal penetrating wounds frequently produce injury to underlying structures by puncture or laceration, whereas blunt or crushing force may result in shearing, tearing or contusion. Because of its size and mass, the liver is most likely to be involved in the latter type of injury. It has been suggested that the likelihood of rupture or laceration of the extrahepatic structures resulting from nonpenetrating trauma depends upon the presence of either pre-existing disease[2] or a

Toble 1. Etiology of Bile Peritonitis.

I. *Trauma*
- A. Penetrating abdominal wounds.
- B. Non-penetrating abdominal wounds.
- C. Surgical trauma.
  - 1) Accidental injury to liver or bile ducts.
  - 2) Slipping or slough of cystic duct ligature.
  - 3) Accessory bile ducts opened.
  - 4) Faulty anastomosis.
  - 5) Aspirations, biopsies.

II. *Infection*
- A. Obstruction with perforation.
  - 1) Stone.
  - 2) Stricture.
  - 3) Neoplasm.
- B. Infection with necrosis.

III. *Congenital Abnormalities*
- A. Cysts.
- B. Cystic dilatation.

IV. *Idiopathic Conditions*
- A. Spontaneous perforations.
- B. Microscopic perforation (biliary "dew").

state of physiologic distension of these structures at time of the accident.[3]

Extravasation of bile is often a complication of elective operative procedure upon the liver or bile ducts. The "perfect" cholecystectomy has not infrequently been followed by a bile peritonitis resulting from an eroded or slipped cystic duct ligature or the opening of unrecognized or overlooked accessory ducts with subsequent leakage. Failure to seal a T tube into the common duct by adequate snug suture or its premature removal can allow the escape of bile, as can poorly developed anastomoses, biopsies, aspirations or operative injuries along the course of biliary flow.

Rupture of the biliary tract as a consequence of infection has long been a recognized phenomenon. Just how frequently this eventuates in a spreading peritonitis when the gallbladder itself is involved is a matter of some disagreement.[4-6] There can be no doubt, however, that increased biliary pressure, secondary to obstruction, commonly results in infection, ulceration, and perforation with an outpouring of highly contaminated bile.[7] Impacted stones are probably the most common initiating factor although neoplastic growth, congenital dilatation or stricture may also be held accountable for this phenomenon.[8]

Idiopathic leakage of bile, in which peritonitis develops in the absence of any demonstrable source of leakage, has been a subject of interest and controversy for many years. The presence of biliary "dew" produced by filtration of bile across the wall of the extrahepatic biliary channels or gallbladder has been given credence by some,[9,10] although those who have reported some cases are of the opinion that the phenomenon represents actual microscopic perforation or perforation with subsequent sealing which is undetectable even to the most exacting scrutiny at the time of surgery or autopsy.[11]

Congenital defects of the biliary tract have, by one means or another, led to bile peritonitis in children.[12,13] Spontaneous perforation without preceding history of trauma of infection has been observed to result in a spreading type of bile peritonitis.[14]

It would be impossible to hazard a guess as to which of these factors occurs more commonly. Writers have registered diverse opinions in this respect reflecting their personal observations of the clinical material available for study. The exact etiologic frequency is not of any great importance, however. More fundamental is the fact that ultimate salvage or loss of the patient may depend upon recognition and appreciation that any of these mechanisms potentially may lead to the development of this disastrous complication.

Pathology

Within the past 60 years conflicting opinions have been presented regarding the toxic and lethal effects of free bile within the peritoneal space. There are those who believe that its presence is innocuous and of relatively little danger to the host.[15-17] These workers cite instances of patients who have sustained large collections of intraperitoneal bile over long periods of time without succumbing to its effects. It cannot be denied that such observations lend some support to the contention that intraperitoneal bile is harmless. More likely, they merely serve as examples of the fact that choloperitoneum does not terminate in a fatal issue in every instance.

On the other hand, the bulk of recent experimental and clinical evidence appears to support the conclusion that free intraperitoneal bile is extremely irritating and often accompanied by serious and profound reaction and sequelae.[18,19] Analysis of the local pathologic process emphasizes this hypothesis and offers some explanation as to why the disease, in a high percentage of cases, ultimately leads to prolonged morbidity or death.

Human bile is a highly complex alkaline sus-

pension. The solid elements consist primarily of bile salts, bile pigments, cholesterol, lecithin, fatty acids and mucin. Of these components the only ones which are known to be toxic are the bile salts, sodium glycocholate and sodium taurocholate.[20] Bile itself has no enzymatic properties and its lethal effect is dependent upon reaction of the tissues to contact with the bile salts.

Both sodium taurocholate and sodium glycocholate are capable of dissolving the lipoid content of the cell membrane, disturbing and lowering the surface tension of the peritoneum. Phagocytic activity of leucocytes is impaired or the cells themselves are destroyed by action of the bile salts. Atony of capillary and venule walls may also result. Combination of bile and bacteria is highly virulent, not because of the effects of bile upon the bacteria but because of the greater effect of bile upon phagocytosis, permitting uninhibited bacterial growth through inability of the host to mobilize adequate local defensive barriers.

In response to the sudden outflowing of bile, therefore, a certain chain of events is set into motion which disrupts the dynamics of intraperitoneal equilibrium. Congestion and edema of the intraabdominal viscera occur with increased permeability of the cell membranes. There is rapid exudation of fluid in response to this initial insult. Harkins and his co-workers[21] have stated that the volume of this exudate may approximate 30 per cent of the blood volume or 60 per cent of the circulating plasma volume when bile peritonitis develops. The reticulo-endothelial system is inhibited and the inflammatory response depressed. A local necrotizing effect takes place and if bacteria are present they multiply with extreme rapidity. The inflamed and congested peritoneal surfaces allow absorption into the blood stream of toxic amounts of bile salts and products of bacterial growth with resulting systemic effect. The liver, kidneys, spleen and pancreas may become involved secondarily with further decrease in the host's resistance.[22]

Slower outpouring of bile results in less intense reaction. The defensive mechanisms of the body have a longer period of time to mobilize for protection. Local transudation of fluid undoubtedly dilutes the extravasated bile rendering it less virulent and more easily combatted. The greater omentum migrates to the point of perforation and, in combination with the adjacent viscera, effects a walling-off process which localizes and resists the spread of the inflammatory fluid. Immense capacity of the greater omentum to halt the spread of even virulent bacterial infection has been demonstrated.[23] It plays an equally important role in the body's defenses against bile peritonitis.

That bile itself, in its sterile state, is capable of producing these reactions has been proven experimentally[24] and is confirmed by the fact that many people die of acute bile peritonitis within 24 hours of its onset, prior to a time that any effect of bacterial growth can become lethal.

Morbidity or mortality in bile peritonitis, therefore, is the result of factors initiated by the local pathologic process, exerting their influence through one or a combination of several of the following ways.

1) The toxic properties of bile salts themselves which may saturate the organism to the point of death.[24-26]

2) Infection, whose local and systemic effects disrupt the equilibrium of the host.[27,28]

3) Shock, resulting from the outpouring of large quantities of fluid into the peritoneal space, associated with a lowered blood volume, fall in blood pressure and hemoconcentration.[21,26,29]

Copious amounts of bile stained fluid within the abdominal cavity does not necessarily indicate the presence of bile peritonitis. Ravdin and his co-workers[30] have demonstrated that bile ascites may develop when bile stasis secondary to hepatic duct obstruction is present and collateral circulation inadequate. The bile salts and pigments present in the ascitic fluid gain entry by diapedesis through the blood vessel walls rather than directly from the biliary tract and are present in considerably less than toxic concentrations. Evidence of peritoneal irritation is absent and symptoms do not result unless infection is introduced from some other source.

Diagnosis

There does not appear to be any consistent correlation between symptoms and degree of peritoneal contamination, although the elements of time and survival tend to divide the early stages of the disease into the acute or subacute phases, each with characteristic symptoms and physical findings. Based upon a consideration of the pathogenesis of the disease, it would appear likely that the patient's response would parallel the degree of initial peritoneal involvement but such a theoretic consideration is not

borne out by clinical observation.[19] Some patients react violently and deteriorate rapidly when a small amount of intraperitoneal bile is present. Others may sustain massive extravasation and appear to tolerate the insult with considerable stamina. Douglas and Grey Turner[31] have classified bile peritonitis into two categories, the first group comprising those persons in whom the bile is present as a localized collection somewhere within the abdomen and the second incorporating those with a generalized diffuse peritonitis. While this classification is based upon precise pathologic representation of the disease, it does not take into account either the elements of time or symptomatology. No simple classification can adequately or accurately incorporate the many ramifications of the early stages of the disease. The terms *acute* and *subacute* are acceptable as a means of categorizing the early clinical symptoms, and the later untoward results could well be described as the chronic stage, or as complications resulting from the initial pathologic process.

Acute Period

Sudden agonizing abdominal pain, associated with nausea, vomiting, tachycardia and shock, are the first responses to sudden outpouring of bile into the unprepared abdominal cavity. Abdominal distension, tenderness, evidence of spreading peritoneal irritation and ileus follow rapidly within a short time, usually a period of a few hours. These symptoms are not unlike those seen in acute pancreatitis or with perforated duodenal ulcer and some cases have been mistakenly diagnosed as coronary artery thrombosis.

As the process continues, the shock may persist or deepen and the temperature may elevate alarmingly. There is likely to be an increase in bile flow from the abdominal drains if the patient is in the recent postoperative period, although the absence of this phenomenon is no assurance that the patient's immediate plight is not on the basis of deep leaking bile. Reynolds[32] has pointed out the danger of believing that increased drainage in the presence of symptoms of peritonitis is an indication that accumulation within the abdomen is not taking place. Such is rarely true.

The effect of an acute biliary perforation may be compounded if the bile is highly contaminated or concentrated, or if the patient is debilitated. History of recent abdominal trauma or biliary tract surgery are important diagnostic considerations and it is rare that diagnosis of acute biliary peritonitis is made by means less than exploratory laparotomy when such history is absent.

Subacute Period

Unless the patient expires within a short period of time, remission may occur,[9] or at least the clinical picture may stabilize to a certain extent. The temperature may decline and the blood pressure begin to rise slowly. The abdomen may actually become less tender and the initial excruciating pain be replaced by more generalized, dull, aching distress. A doughy feeling replaces the tense distension of the initial acute stage and shifting dullness may be elicited. The patient frequently complains of hiccups. Jaundice commonly develops. Extreme lethargy grips the patient and there may be mental deterioration. It is during this period that the omentum and viscera are attempting to combat the further spread of bile by walling it off into cavities or loculation within the abdominal space. Thus, the subacute phase of the disease may last for days or weeks when the point of leakage is a tiny one and the bile sterile, or it may terminate suddenly in death if the defenses are unable to withstand a massive outpouring or virulent infection.

Chronic Period

Unless definite measures are instigated to prevent their occurrence, survival of the early stage of the disease is frequently followed by complications which are serious and disabling. Because of severe inflammatory reaction of the peritoneal surfaces and irritation of the bile salts to the capillary walls, constant exudation of fluid may ensue with resulting ascites not unlike that observed in cirrhosis or carcinomatosis.[7] Should healing of the injured serosal surfaces take place by development of dense scar tissue, chronic adhesive peritonitis is the result. There is then danger of obstruction or perforation.

Accumulation of liquid in the subphrenic space is a potential complication of any type of peritonitis but is especially hazardous as a result of bile leakage. Because of its location, the usual means of conservative therapy are ineffective and its presence over a period of time may lead to pulmonary as well as abdominal disturbances. Maguire[7] has discussed the chronicity of external

biliary fistulae as a complication of bile peritonitis and emphasized the problems inherent in its management and eventual eradication. Dehydration, electrolyte disturbances, sepsis and malnutrition generally accompany the chronic loss of large amounts of bile and the surgeon is frequently confronted with the decision as to whether masterful inactivity or surgical intervention offers the best means of early rehabilitation.

Therapy

Discussion of the treatment of bile peritonitis must incorporate first an appraisal of the means by which its development may be avoided. Of primary importance, in this respect, is the utilization of routine drainage of the operative site following elective procedures on the liver or biliary tract or after traumatic wounds to these structures have been repaired. Drains should be placed close to the area of manipulation and may be sutured to an adjacent bit of tissue with very fine catgut to prevent their movement, if copious drainage is anticipated. Here they should remain until they no longer serve their purpose and flow has ceased. Soft rubber tubes serve best for this for they can be aspirated if necessary. Penrose casings are adequate if the abdomen is not closed too tightly about their exit.

Other preventive measures include suture-ligation of the cystic duct stump, careful closure of accessory ducts and reperitonealization of the gallbladder fossa if the liver has been traumatized during cholecystectomy.

Once the diagnosis is established, immediate surgical drainage is indicated. Hall[33] has stated that 90 per cent of patients will recover if operated upon within the first 24 hours after onset, whereas only 60 per cent will survive if 24 hours elapse, and but 40 per cent will remain alive if delay is continued for 36 hours. It may be necessary, in some instances, to employ peritoneal aspiration to substantiate the presence of extravasated bile and precipitate the decision to undertake laparotomy. This technique is of extreme value as a diagnostic aid, but is worthless for therapeutic purposes in the early stages of the disease.

Upon opening the abdomen, bile stained fluid will gush forth into the wound if a free extravasation has occurred and it will be observed that the viscera are deeply stained, edematous and inflamed. Locculation is most likely to occur in the subhepatic, subphrenic spaces, the lateral gutters, or within the pelvis. Regardless of its whereabouts, all of the fluid must be removed, after which thorough lavage with warm, normal saline should be carried out. Search for and repair of the point or points of extravasation must be undertaken, the area adequately drained and the incision closed in routine fashion. Cholecystectomy or cholescystostomy may be required if extensive damage to the gallbladder is discovered.[20]

Should the surgeon fail to identify the source of leakage, as is frequently the case, drainage alone is required. This procedure will establish an external fistula, allowing the bile to flow harmlessly to the outside, in the event leakage continues. Such a fistula will eventually close spontaneously or offer a means of locating the source of its flow at subsequent exploration should it become necessary.

Shock which accompanies the acute stage of the disease has been shown to be a vitally important and lethal factor in contributing to its high mortality rate. Its development must be combatted vigorously by immediate administration of whole blood, blood plasma or Dextran. Liberal amounts of intravenous fluids are required to maintain adequate hydration, and the serum electrolytes must be kept in proper concentration and balance. Antibiotics are indicated because of the great hazard of unopposed bacterial growth. *Escherichia coli*, streptococci and upper respiratory inhabitants may be expected as the most common invaders,[20] but it is imperative that cultures be taken and sensitivity studies instigated at the time of laparotomy. Gastric or gastrointestinal decompression is warranted to prevent protracted vomiting and to minimize the effects of distension of the small bowel. Oxygen, digitalis and other supportive measures affording symptomatic relief may be needed in severe cases.

During its chronic period, the disease frequently taxes the surgeon's ingenuity and patience. Adhesive peritonitis may complicate the convalescence and require repeated periods of intestinal intubation to ward off impending obstruction. If this type of conservative management proves to be unsuccessful, laparotomy and lysis of the adhesive bands becomes mandatory. Intractable or recurrent cases may require side-tracking or plication procedures in order to

obtain permanent relief. Persistent external biliary fistula may remain as the aftermath of acute peritonitis, with considerable distress and disability to the patient. The majority of chronic fistulae will close spontaneously if given enough time, and provided there is no distal obstruction. Those that do not close within a reasonable period of time, or result in severe and rapid debilitation of the patient despite supportive therapy must be repaired surgically.

Collections of bile within the subhepatic or subphrenic spaces will rarely be absorbed and once their presence is detected they should be evacuated. Unless this is done, internal fistulae, hepatic inflammation or diaphragmatic and pleural irritation can ensue. The transudate which occasionally accumulates within the abdominal cavity as a later response to the initial inflammatory process is generally of little consequence. If persistent or symptomatic, aspiration is the simplest means of effecting a cure.

Three representative case histories demonstrate several of the pitfalls and problems relative to the prevention and treatment of the disease.

CASE REPORTS

Case 1. A 60 year old white male entered St. Luke's Hospital, Chicago, Illinois, on May 9, 1954 with history of right upper quadrant pain associated with nausea and vomiting for approximately 48 hours. Past history revealed that in September 1953 the patient underwent cholecystectomy and common duct exploration for common duct obstruction. The patient made uneventful recovery from this operation and six weeks after his discharge from the hospital the T-tube was removed without incident. In December 1953, however, the patient was readmitted to the hospital at which time approximately 400 cc. of purulent matter was removed from under the right diaphragm. After a rather stormy course the patient was discharged on Dec. 24, 1953 symptom free. In January 1954 the patient was again admitted to the hospital, this time with complaints of chronic abdominal pain, nausea and the passage of light stools. These symptoms had been present for approximately 10 days. Examination and workup revealed evidence of extrahepatic biliary obstruction. Diagnosis of common duct stone was made. On Jan. 16, 1954 the patient underwent surgery. Adhesions were found about the common duct, a fistulous tract was dissected free to the common duct but no obstruction was demonstrated. A T-tube was placed in the common duct for drainage and after an uneventful recovery the patient was discharged from the hospital with a T-tube in place, on Feb. 3, 1954. Three weeks prior to the present admission the T-tube was removed after having been injected with Lipiodol and negative findings established. At time of the present admission the patient's temperature was 99.8 F., his pulse 120 and blood pressure 100/60. Physical examination revealed the patient to be extremely ill and in state of shock. The abdomen was tight, exquisitely tender, with evidence of spreading peritonitis. White blood count was 11,000; red blood count 4,280,000; serum amylase was 60 units; the sedimentation rate 15. X-ray of the abdomen revealed some ileus. Surgery was undertaken May 10, 1954 at which time an incision was made through the previous right upper quadrant scar. Upon entering the peritoneal cavity 2,000 cc. of clear bile was aspirated. Dissection through many adhesions was carried down to the area where the T-tube had emerged from the common duct and it appeared that this was the point of drainage. The area was closed carefully with silk and drained. Another soft rubber drain was placed in the right lateral gutter and the abdomen closed with through and through wire sutures. Profuse drainage appeared through the tube for several days but subsided slowly. The patient made an uneventful recovery and was discharged from the hospital on June 2, 1954. Subsequent to that time the patient has complained of some abdominal pain, has been slow to regain his previous activity but otherwise has had no further acute abdominal episodes.

COMMENT: This case demonstrates the fact that, despite previous abdominal operations producing adhesions and possibly some peritoneal immunity, the extravasation of free bile can result in acute peritoneal reaction within a short period of time.

Case 2. A 58 year old white female underwent abdominal laparotomy with cholecystectomy and common duct exploration Jan. 7, 1954. A T-tube was placed in the common duct for drainage and the patient made uneventful recovery. She was discharged from the hospital on Jan. 23, 1954 without symptoms and with free biliary drainage from the T-tube. On March 25, 1954 the patient was re-admitted to the hospital with severe abdominal pain, some jaundice and nausea. Symptoms had been present for five days prior to her admission. The T-tube had been removed nine days previously and within 48 hours after its removal the patient began to experience vague abdominal distress. Upon admission her temperature was 100.2 F. Blood pressure was 130/90 and pulse 80. The patient seemed to be somewhat lethargic but in no serious state of shock. The abdomen was distended, had a doughy feeling and bowel sounds were present. X-ray of the abdomen revealed ileus but no evidence of acute bowel obstruction. There was deep tenderness in both lower quadrants of the abdomen but the upper abdomen appeared to be normal. White blood count on admission was 14,500; quantitative Van den Berg a total of 3.68 units; serum electrolytes were normal; blood sugar was 172 mg. The patient was treated with intravenous fluids and gastric intubation. She responded well to this management. At no time did she localize symptoms in the upper abdominal quadrants and after approximately 72 hours in the hospital, appeared to be considerably better. Upon removal of the gastric tube and discontinuation of fluids, however, the patient experienced nausea and vomiting, and was unable to remain in a normal state of hydration. Diagnosis of slowly developing bile peritonitis was established and on March 30, 1954 the patient underwent surgery. The previous right upper quadrant incision was opened and upon entering the peritoneal cavity approximately 2,500 cc. of clear bile was obtained by aspiration. The bile was not loculated in any quadrant but filled the entire peritoneal cavity. The viscera were deeply stained and granular. Exact source of the leakage could not be demonstrated as considerable adhesions were present about the porta hepatis. A large Penrose casing and soft rubber drain were placed into the lesser peritoneal space and brought out through the lower pole of the incision. The abdomen was closed with through and through wire

sutures and the patient given supportive therapy. She made an uneventful recovery; the jaundice subsided rapidly, and on April 14, 1954 she was discharged from the hospital free from symptoms. The drains were left in place another week until drainage ceased and then were removed. The patient gained strength rapidly and was rehabilitated within three weeks after her discharge from the hospital.

COMMENT: The presence of free bile in the peritoneal cavity does not always result in an acute episode. This patient demonstrated the fact that, despite immediate leakage from a common duct rent, with massive biliary peritonitis, acute reaction is not always demonstrated. Upon drainage of free bile the patient can make an uneventful recovery.

Case 3. A 23 year old white male, entered the 11th Evacuation Hospital on Aug. 16, 1951 with history of having received an upper abdominal penetrating wound seven days prior to this admission. Original exploration of the abdomen at the time of injury revealed the patient to have sustained a penetrating wound of the liver and laceration of the jejunum. The jejunal lacerations had been repaired carefully, the penetrating wound of the liver approximated and the abdomen closed without drainage. The patient appeared to make an uneventful immediate postoperative recovery and seven days after the original surgery was evacuated to the rear. Upon admission to the 11th Evacuation Hospital the patient appeared to be in a fairly good state of hydration; the abdomen was soft; he was passing gas, and a moderate amount of material was being aspirated from a nasogastric tube. The patient's temperature and white blood count were within normal limits on admission. Within 48 hours, however, he began to develop evidence of peritoneal irritation. The abdomen became distended, tense and exquisitely tender. He became jaundiced and began to deteriorate rapidly. On the eighth postoperative day abdominal explorarion was undertaken for diagnosis of spreading peritonitis. Upon opening the abdominal cavity through the previous incision, a massive amount of free intraperitoneal bile gushed into the wound and it was found that the bile originated from the previous penetration of the right lobe of the liver. Several sutures were placed across the leaking area and drainage was carried out using several large soft rubber drains into the lesser peritoneal space, right subphrenic space and subhepatic space. These were brought out through the lower pole of the incision. Postoperatively the patient did poorly and despite massive doses of antibiotics, intravenous therapy and other supportive measures, expired within 48 hours.

COMMENT: In spite of this patient's youth and minimal intraabdominal injury, the presence of free bile originating from the liver resulted in a massive peritonitis which terminated in his death. It demonstrates well the fact that all incisions or wounds into the biliary tract should be drained to prevent the accumulation of free intraperitoneal bile.

Summary

Bile peritonitis is a catastrophe which may follow accidental or surgical trauma to the biliary tract, congenital abnormalities or as a result of spontaneous perforation.

The extremely irritating properties of bile and its ability to inhibit normal defensive phagocytosis tend to produce severe peritoneal reaction, which, if untreated, terminates in fatal issue in 50 to 75 per cent of the cases. Acute and subacute stages of the disease are treated by immediate irrigation and drainage of the peritoneal cavity, and closure of the point of extravasation, if possible. Shock and dehydration accompanying the early phases must be corrected and antibiotics employed to combat infection.

Unless early and vigorous therapy is undertaken, sequelae develop which are chronic and disabling. Adhesive peritonitis, biliary fistulae, perihepatic abscess or intraperitoneal fluid accumulation may require subsequent surgical correction.•

Fifth and Evans Streets.

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Backache of Muscle Tension Origin

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Pain in skeletal muscle is related to ischemia. It may follow sustained contraction or intermittent contraction with short rest periods. If a patient whose usual response to a situation involves muscular activity is unable to act, he may experience sustained contraction with ischemia and pain.

In an attempt to arrive at a more comprehensive understanding of the relationship between feeling states, life situations, and backaches, the following studies were undertaken to elucidate the participation of skeletal muscle activity in behavior leading to back pain. Other experiments were designed to demonstrate the relationships between skeletal muscle contraction and skeletal muscle blood flow in the genesis of muscle pain. The literature has, in recent years, contained articles implicating emotional disturbances as an etiologic factor of backache[1-3] and studies of the psychophysiologic mechanisms through which pain is produced.[4-6]

Patterns of pain and muscle activity were studied in 65 subjects ranging in age from 14 to 56 who were observed from one to six times weekly for periods lasting one week to two years. Onset in some followed bending, turning, lifting, and straining. There were varying degrees of disability. Pain was experienced deep to the skin, was poorly localized, and characteristically of a dull, aching quality. In most patients pain was limited to the lower lumbar area, but in some extended as far as the neck or the extremities. Objectively the muscles were often tense and firm to palpation. The pain and spasm sometimes limited activities such as lifting and bending. There was frequently pain on straight leg raising. Muscle tenderness was a common feature at one time or another during the course of the disorder and was sometimes localized in trigger areas. Pressure over these areas could engender pain or accentuate referral of pain.

Routine laboratory and radiologic studies in this group were, in the main, non-contributory. One patient had a bony defect in the neural arch of the fifth lumbar vertebra and another spondylolisthesis of the same vertebra. Six showed minimal osteoarthritic lipping of the vertebral bodies which was not judged to have contributed to their symptoms. Only one had a herniated nucleus pulposus. The method used in this study has been reported previously.[1] In brief, action potentials from the back muscles were recorded on an eight-channel ink-writing oscillograph by means of subcutaneously placed bi-polar needle electrodes applied bilaterally to the skeletal muscles of the torso and the extremities. Pain intensity was estimated by the subjects on the basis of an arbitrary scale of 0 to 10+, 10+ representing the maximal pain in the subject's experience. Amount of muscle activity was computed by analysis of the electromyographic records.

Psychiatric interviews elucidating the emotional reactions to stressful life situations and the family and social history were obtained and notes were made of interviews during the course of the experiment. Highlights from several of these case studies will be reported in some detail.

CASE 1

A 32-year-old white Roman Catholic housewife and part time registered nurse complained of low back pain

of five years' duration. She was a tense anxious woman whose main defense against anxiety was "keeping busy" and being active. She was the tenth of thirteen children and was born of a domineering and querulous mother and an ineffectual, passive, alcoholic father. She called herself a tomboy since as a youth she had participated in boys' sports and had frequent fights with both boys and girls. Her unhappy childhood was marked by temper tantrums, enuresis, and nightmares until the age of 10. She was excessively dependent on her mother and took over much of the responsibility in the home to win her mother's approval. She alternated between passive submission through working hard and angry rebellion against her unappreciative mother.

She maried outside the Catholic Church to a man who, like her mother, was both demanding and unsympathetic. By working part time and keeping a meticulously neat home she attempted to win the satisfaction which was lacking in her marital relationship. Unable to express her feelings of hostility and resentment she suppressed them or ruminated over the injustices she suffered. After the birth of her second child she became increasingly disturbed with complaints of fatigue and loss of energy. Her appetite was poor and her fitful sleeping was frequently interrupted by anxiety dreams.

In this setting of prolonged and mounting conflict the patient first became aware of persistent backache. During an interview with the subject, action potentials were recorded from the muscles of the lumbar region and the posterior thighs (Fig. 1). During the discussion of her

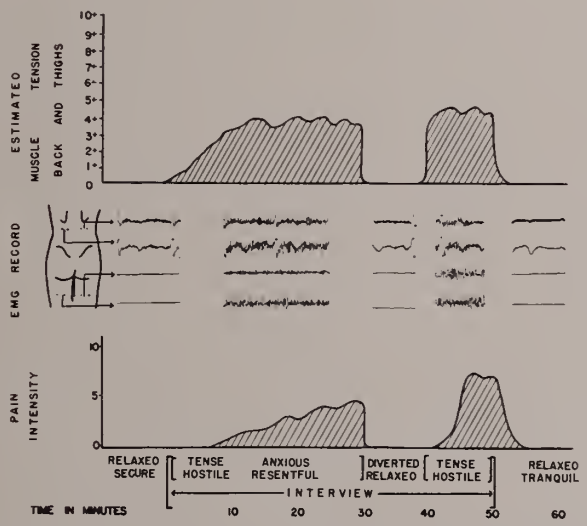


Fig. 1. The genesis of low back pain accompanying interview provocative of conflict, anxiety, and generalized skeletal muscle hyperfunction. (Reprinted with permission of Psychosomatic Medicine from the January-February issue, 1952, p. 26, and of the Williams & Wilkins Co., Baltimore, from the 1949 Proceedings of the Association for Research in Nervous and Mental Disease, 1950, p. 750.)

unhappy childhood she ventilated her feelings of guilt and hostility. As she discussed this highly charged topic her posture on the table was remarkable for stiffness and immobility. Only six minutes after the interview started she complained of a dull aching pain in the low back area and buttocks. With the change, after 30 minutes' interviewing, to more neutral topics she became visibly relaxed. The pain disappeared as her muscles relaxed and electrical activity subsided. Exploration of the sensitive topic was resumed after eight and a half minutes with the characteristic reappearance of increased posture rigidity, sustained muscle tension, and back pain. "This is as bad as the worst backache I ever had." Toward the end of the interview, the interviewer was more supportive and she became tranquil and relaxed; the muscle tension and pain disappeared.

In the group studied, the backache syndrome most commonly appeared in settings of threatening life situations evolving from difficulties in personal and social adjustments. In such situations these individuals are often unable to take positive measures to resolve their difficulties for fear that their action may add to their insecurity and frustration. Fear over retaliation or punishment for their angry feelings frequently inhibits them from action. In this way the impulse to move or to be active arising out of their intense feelings is restrained. These contrasting forces are reflected in their posture and use of skeletal muscles. Rigidity and stiffness of posture reflect both the impulse to move and the simultaneous resistance of movement.[5]

CASE 2

Another subject was a 46-year-old man who had emigrated with his family to the United States from Italy at the age of 6. The subject was the youngest of three children born to a stern father, who worked as a tailor, and a perfectionistic and demanding mother. His childhood pattern for gaining security was based on being a "good boy" who performed well in ways to win the approval of his parents and other authoritative figures. Fear of being punished or rejected led him to avoid fights or other open expressions of hostility. Still he was an active, even restless child. After high school graduation he worked at a succession of "menial" jobs, always quitting because he felt "mistreated" and "taken advantage of" by his boss or fellow workers.

Following his marriage at the age of 22, he was able to slowly improve his social and economic status. For 24 years he worked as an electrician for a large company. Constantly frustrated in his efforts to get ahead, he attributed his dissatisfaction to the malevolence or neglect of his employers and bosses. During the preceding nine years he had marked a particular superior as the one responsible for his difficulties. He reacted to what he imagined to be unjust treatment with strong feelings of resentment and anger. Gradually relations with others became notably more strained and marked by suspiciousness and withdrawal. As he became more tense and restless, he experienced difficulties in making decisions, loss of energy, insomnia, and persistent feelings of fatigue. It was during a period of particularly sustained and bitter recriminations with his superior that the subject had fallen from a ladder and "injured" his back. Examination at that time revealed no evidence of a ruptured intervertebral disc or other structural abnormality. The examiner had noticed sustained spasms of the paravertebral muscles. During the ensuing two years, as compensation litigation was in progress, he felt more and more rejected by his company to which he felt he had sacrificed the best years of his life. Occasions when

he was especially dissatisfied and hostile over what he thought were "excessive" demands made by his superior were closely related to periods of back pain. Following the injection of 0.4 Gm. sodium amytal intravenously the reclining patient was interviewed as the electromyograph recorded action potentials from the lumbar sacrospinalis, the trapezius, and the ham-string muscles. In the interview the subject discussed his difficulties with his superiors and his unsatisfying work situation. As he gave vent to his feelings of anger, resentment, and humiliation, he became tense and restless. The climax in the interview was associated with maximum discharge of electrical activity in a heated discussion of his accident. At a time when both pain and muscle tension were at a maximum in the interview, he said, "The next night (after the accident) the boss came to see me in the hospital. I was in a stupor, but I recognized him. He said he had called my wife and she said I had fainted on the ladder. I said, 'Mr. H. . . ., that's not true . . . a lie . . . not the way it happened . . . I slipped and fell . . . never sick before in my life.' He was trying to cover up the whole thing by saying I was a sickly man. He said he couldn't find the object I slipped on . . . He said, 'I don't believe you're so sick' . . . He had no right to tell me such a thing when I was in such a condition . . ." As the patient's expression of feelings mounted he complained more and more of pain in the back. When discussion was directed to pleasant topics the subject's pain and muscle tension subsided as he became more tranquil.

To take action is a basic component of the behavior of any individual. The reflex withdrawal of the hand from a source of painful stimulation is an example of the participation of skeletal muscles in behavior meant to protect the individual from noxious threats in the environment. There is abundant evidence dealing with the role of skeletal muscle activity in more complex patterns of behavior, such as the fight or flight response.[6-9]

Such common terms as "on guard," "angry," "competitive," and "apprehensive," all connote familiar patterns of behavior involving specific feeling states and muscular activity. The "on guard" tense pattern of behavior found in all of the patients in this series implies a constant state of readiness of the skeletal musculature to participate in impending action. Although it is not possible to delineate any specific personality type in the backache patients, still it is remarkable how many have depended on activity patterns involving vigorous muscle activity for their satisfactions. The women, for instance, in this series nearly all related memories of having been tomboys unusually interested in vigorous competitive play and sports.

If there is no specific personality configuration in these patients, still there is a specific attitude to the stressful circumstances precipitating their backache. The term *attitude* includes the way one feels about a situation and what one wishes to do about it. In these and other studies,[10] there exists a remarkable consistency of attitude in that all of them wanted to perform action involving bodily musculature, such as running or fighting, but all of them, because of the nature of their situation, were unable to act. Their drive to action was inhibited by others or by their own guilt and fears of retaliation or injury.

The next section summarizes investigations on the physiologic mechanisms through which the backache attitude ultimately leads to pain.

Mechanisms of Muscle Pain

Lewis and others[11,12] have demonstrated the crucial role of ischemia in the production of pain in such conditions as angina pectoris and intermittent claudication. Recent investigations of headache and backache syndromes have demonstrated that sustained skeletal muscle tension leads to pain, in the absence of pathologic involvement of either the blood vessels or the muscles.[1,13] The following experiments were undertaken then to evaluate the relationships of skeletal muscle activity and blood flow to the genesis of pain.

The experimental conditions have been described previously.[4] Briefly, they were as follows: The 10 subjects lay on a bed with the forearm comfortably extended. Skeletal muscle contractions were performed by squeezing with the fingers a rubber bulb attached by rubber tubing to a graduated mercury manometer. Muscle temperature was measured by copper-constantan thermocouple wires inserted in the 23-gauge needle placed to a constant depth of 20 mm. in the flexor forearm muscles. Circulation to the exercising forearm in some experiments was occluded by inflation of the sphygmomanometer cuff to pressures exceeding 200 mm. mercury.

Experiments were devised to compare the characteristics of pain produced in both rhythmic and sustained muscle contraction with circulation arrested and with circulation intact. Typical of the findings in a large number of experiments were the results obtained by comparing two strong sustained contractions of flexor forearm muscles, one performed with circulation arrested and the other done with the circulation to the arm intact. The contraction with circulation arrested was held for 150 seconds, at which time amplitude involuntarily fell. Pain commenced 32

seconds after the contraction experiment started and persisted until the circulation was restored by releasing the pressure in the sphygmomanometer. The amplitude of the strong contraction performed with circulation intact involuntarily diminished after 150 seconds, but could be maintained for another 10 minutes at a diminished level of contraction strength. Pain latency or the time from onset of the contraction until the appearance of pain was 55 seconds after the contraction began and persisted until the exercise ended.

The pain produced during the sustained contractions, as well as in strong rhythmic contractions with short rest pauses, was deep, dull, and poorly localizable and was experienced in the area of the active muscles. These observations indicate that rhythmic and sustained skeletal muscle contractions performed with intact blood flow are productive of pain with qualitative and quantitative characteristics indistinguishable from pain produced in muscles with arrested blood supply. To determine if the same basic mechanism of ischemia was present in sustained contractions, experiments were designed to use muscle temperature as an index of muscle blood flow during contractions. Immediately following onset of a contraction there was a fall in muscle temperature followed by a period of a plateau or slight increase in temperature.

Muscle temperature rose rapidly at the end of contractions and remained elevated for several minutes much in the same way that muscle temperature rises after the blood flow is restored to a previously occluded forearm. Using muscle temperature as an index of muscle blood flow, experiments were performed using rhythmic exercises in which brief periods of contraction lasting from 3 to 10 seconds were followed by rest pauses of equal duration. The finding of progressive increase in muscle temperature during rest periods and a relative diminution of flow during contraction periods is corroborated by similar results of others using plethysmographic methods of measuring muscle blood flow.[14]

Figure 2 illustrates the muscle temperature change during a strong sustained contraction of the flexor forearm muscles and also the plethysmographic changes determined by Grant in a similar exercise.[15] Pain began 45 seconds after onset of the contraction and mounted in intensity until the contraction ended. The disappearance of pain is related to the influx of arterial blood.

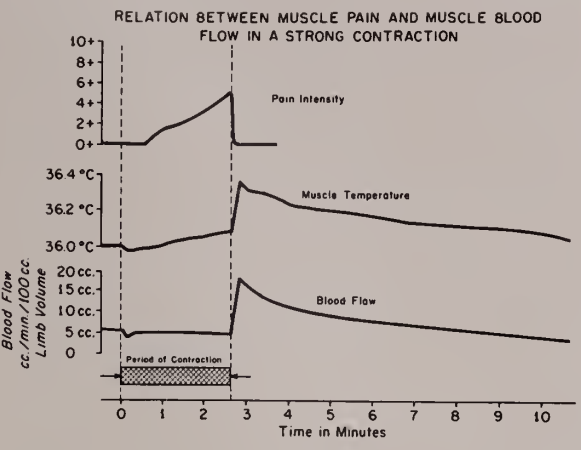


Fig. 2. Comparison of pain intensity, muscle temperature, and forearm volume changes (blood flow) during and following a sustained contraction of the forearm flexor muscles. Blood flow changes have been adapted from Grant.[15]

Skeletal muscle pain and tenderness predictably occur during the sustained and prolonged intermittent muscle contractions. The pain intensity and the pain threshold (the time interval between the start of contraction and onset of pain) are directly related to the strength of the muscle contractions. Compared with weak contractions, strong contractions are characterized by more intense pain and earlier onset of pain and by a marked influx of arterial blood to the relaxed muscle.

The peripheral mechanisms involved in the pain process relate to the circulatory and metabolic dynamics of skeletal muscle activity. Muscle contraction, by obstructing arterial flow, renders the muscle ischemic for the period of contraction. The degree of ischemia, as determined by a variety of blood flow experiments, is approximately proportional to the contraction strength. The increase in blood flow which accompanies muscle activity in ordinary kinds of exercise, such as walking, takes place during the relaxation periods between contractions. In a number of experiments involving measurements of muscle pain, fatigue, and blood flow, it was shown that the frequency and duration of rest pauses in intermittent contractions were critical factors. That is, fatigue and pain onset were earlier and pain was more intense when pauses were short and occurred infrequently. Thus, depending on the duration and frequency of rest pauses as well as the strength and duration of contractions, muscles may become relatively ischemic over a long time interval. The prolonged state of

anaerobic activity associated with sustained contractions is accompanied by shifts of electrolytes across the cell membranes and accumulation within the muscle of metabolic products which are dissipated in the presence of adequate blood flow and oxygen.

Lewis postulated that the factor responsible in ischemic muscle pain was a metabolite which he designated as Factor P.[11] Agents suggested to be Factor P included anoxia, acid metabolites (i.e., lactic acid), phosphoric acid, histamine, and potassium.[14] Of these, only potassium appears able to fill at least some of the conditions necessary for consideration as the pain factor.

Discussion

In addition to the emotional factors considered here there are, of course, a variety of illnesses and injuries which may precipitate the backache syndrome. Pain itself arising from structural disease, such as a herniated intervertebral disc, through local reflexes acts as a stimulus for muscle tension.[5] Figure 3 depicts the vicious

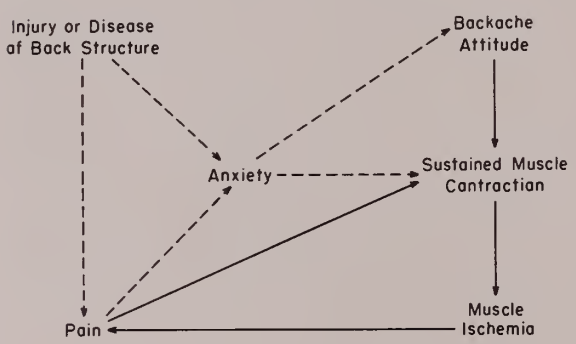


Fig. 3. Schematic representation of the interrelation of injury, disease and emotions in the backache syndrome.

cycle which may ensue when the pain caused by sustained muscle tension leads to greater muscle activity and in some individuals increased anxiety and conflict.

As a protective reaction pattern involving hyperfunction of skeletal muscles, the attitude which involves the readiness and desire to carry on movement of the entire body is well tolerated by the body for very brief periods of time. Difficulties ensue though when the patient is unable to complete the activity and instead maintains the sustained contraction until pain develops. Finally, then, the vicious circle is facilitated when the engendered somatic and psychic reactions become matters of concern and themselves further enhance and perpetuate the conflict.

Management

In an attempt to restore comfort and productivity to the patients with backache of muscle tension origin, a broad perspective must be taken in which the patient's many problems are considered as an interrelated whole. One must not think of the patient's illness in terms of either psychiatric or orthopedic disease, but consider that both factors are often combined and intertwined to produce the final clinical picture.[16] Management of the patient with emotional disturbances should include an attempt to deal with the personality features which bring about the muscle hyperfunction pattern. He should be allowed to ventilate his suppressed hostile and guilty feelings, and helped to understand for himself something of his own emotional reactions and attitudes. Treatment is sometimes complicated by lawsuits and litigation for compensation. In these people sometimes the wish to become well may be out-weighed by the secondary gains accruing from compensation and dependency needs. Experience has shown that an early cash settlement facilitates rehabilitation.

Essential, too, in management of backache, are measures which relieve pain, induce muscle relaxation, and improve blood flow. Physiotherapeutic techniques are helpful. Bed rest, although affording relief in many severe acute cases, may make some patients worse since confinement and immobility may be intolerable and the tension and pain enhanced rather than relieved. Travel and others have described techniques by which pain arising from trigger areas may be relieved by spraying with ethyl chloride spray, or local infiltration of tender areas with 1 per cent procaine.[17] Particularly useful in management of severe symptoms is intravenous sodium amytal (0.25 to 0.5 Gm.), especially when combined with psychotherapy. •

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Time Is Running Out?

What an anomaly our American civilization presents! Here we are, a people who have invented and perfected more timesaving devices than Abe Lincoln could possibly have imagined while walking 12 miles to borrow an English grammar. Yet, never have so many complained so much about a lack of time to read, to think, to write, to reflect, to comprehend the economic and moral predicates on which a good society rests—indeed, to do any of the things that upgrade the mind and elevate the spirit.

Where does the time go? What's at fault here? Is it these timesavers or is it thee and me?

The mechanical dishwasher certainly qualifies as a timesaver. But install a glass door in it and then sit around watching its miraculous operation and little time would be saved for higher activities.

Television is a thing of wonder. One need no longer take the time nor travel the miles to see a football game, a play, a movie, a presidential inauguration, or numerous other events. Prior to the age of TV the obstructions of space and time served to limit our entertainment indulgences. But with the substantial removal of these obstructions many of us now use the saved time to more generously gratify our craving for the lighter pastimes.

The auto and the plane are timesavers as are tens of thousands of other modern inventions. But, for what worthy pursuits is all this time saved? These inventions *could* save time for the release of our creative energies, for study, for contemplation, for the realization of those higher potentialities peculiar to our individual persons. Timesavers can be employed to economize, to lessen drudgery, to free our higher selves from obstructions; *or we can use timesavers to multiply the ways we indulge ourselves.* It is a matter of personal choice. That many of us in our listening, our talk, in our cocktail parties, even in our reading, feed on the stuff that "waters the weeds of the mind" is an interesting commentary on how blessings can be maltreated.

There are reasons to believe that blessings cannot forever be abused in this manner. These blessings—these mechanical marvels we enjoy—have been made widely available with but minor effort on the part of each, such are the wonders wrought by a free society. If, however, the free society is perverted, if its delicate exchange of relationships are seriously impaired, these blessings can be lost as easily and as quickly as they appeared upon the American scene. But, unfortunately, those persons who refuse studiously to reflect on these problems can never have any awareness of this impending danger.

Time is not running out on us—any more than is the atmosphere. If we contaminate the air we breathe, have we a right to complain about the absence of fresh air? Time is in abundant supply; each day still has 24 hours. The fact that we use 140,000,000,000 man-hours annually to view TV and additional billions of man-hours for other forms of entertainment and indulgence is no basis for claiming a lack of time to educate ourselves. The plaint that "time is running out" has nothing to do with actual time supply. It has only to do with how we choose to use our supply of time.

From Notes from FEE, March 21, 1958.

Surgical Management of Otosclerotic Deafness

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Purpose of this brief paper is to report to physicians not specializing in otolaryngology what can be done in surgical care of deafness due to otosclerosis.

Any physician must suspect otosclerosis in those hard-of-hearing patients who present the following complaints or symptoms:

1. Deafness is insidious, usually beginning in the late teens. Progress of deafness is variable—in some quite rapid, in others so slow that a hearing aid is not required until middle age has been reached.
2. Hearing is better in noisy places. The patients hear well on the telephone and they hear well with a hearing aid.
3. Canals and ear drums are normal. Inflation of the eustachian tubes, either by the patient or by the physician, does not produce improvement.
4. The lower pitched tuning forks are heard longer by bone conduction than by air conduction.
5. The patients speak in a low voice. Some even whisper.
6. Medical treatment is of no avail.

In 1938 Julius Lempert presented a one-stage operation for relief of this type of deafness.[1] This procedure consisted in creating a window in the lateral semicircular canal through which airborne sound could pass to the cochlea, permitting the deafened to hear ordinary speech. Dr. Lempert's operation was not new. It had been tried in Europe with only occasional success for many years prior to 1938. The Lempert technique was the first practical one-stage operation and has given excellent results in about 80 per cent of the cases. This procedure is commonly known as the fenestration operation. Its chief drawbacks are:

1. A large cavity which needs life-time periodic attention remains in the operated ear.
2. The patient is disabled from three weeks to a month.
3. There is considerable vertigo during convalescence, and occasionally for years afterward on sudden movements of the head.

To one who has had his hearing restored by this procedure these travails, however, are minor.

In 1952 Sam Rosen revived a procedure, stapes mobilization, which had been attempted by Kessel 80 years ago.[2] In America between 1891 to 1893, Blake, Falk, and Burnert used stapedial mobilization without much success. As with any so-called new procedure or departure from the routine of 20 years, Rosen's work did not stir up much interest for some time. Stapes mobilization was not accepted by surgical otologists until two years after its reintroduction. By that time Rosen in this country, and his pupils in Europe and Israel, had done more than a thousand operations. Now widely practiced, the operation has been done in this country for several thousand



The stapes as viewed through an ear speculum showing the incision, the reflection of the tympanic membrane, the long process of the incus, the promintory and round window, the stapedial tendon, and part of the stapes.



This stapes shows fracture through the otosclerotic plaque which is anterior. As far as is known, these fractures do not heal, thus the stapes is capable of continued mobility.

patients. Early reports of success varied from 20 to 50 per cent. It seems to be established around 60 per cent at the present time.

Technique

The purpose of stapes mobilization is, as the name implies, to free up a stapes that has become locked in its oval window niche. Fixation occurs when otosclerotic plaques cover the foot plate of the stapes and prevent movements of the ossicular chain.

Using local anesthesia, the drum is elevated and the stapes exposed. A small portion of the bony posterior canal wall is removed for exposure of the stapedial tendon. One may visualize the incus, stapes, round window, promintory, and facial nerve covered by thin bone. A needle-like instrument is placed on the head of the stapes and moderate pressure is exerted. Only a touch is required to free the stapes at times. Some stapes are so firmly fixed that mobilization is not possible, as too much force will result in a fracture. Numerous other methods are being tried to free the stapes at the foot plate.

My own personal experience with 75 cases is as follows:

1. In 42 there was improvement to a practical level for hearing speech (30 decibels or better).
2. In 33 there was no improvement.
3. In 2 of the above there was additional hearing loss of 5 decibels.

Complications:

a. Serous Otitis—1
b. Otitis Media Suppurative—2
c. Perforation permanent—1 of above
d. Regression—none to date
e. Facial Palsy—none
f. Alteration of taste—occurred in several patients due to stretching of Chorda Tympani nerve. This annoys only those patients whose hearing has not been improved.

Conclusions

1. Mobilization is a simple, worth-while procedure for amelioration of otosclerotic deafness.
2. Results are not predictable. The surgeon so far has no real means of predicting final results from pre-operative examinations.
3. After failure, most cases may still be improved if the Lempert fenestration is employed.
4. Mobilization should be tried prior to fenestration surgery because of the minor nature of the mobilization procedure.
5. The mobilization operation, while simple, should not be attempted until the operator has had adequate training. Errors in technique can result in permanent perforation of the drum, paralysis of the facial nerve, labrynthitis or combinations of these unfortunate events. The result can be irrevocable loss of all hearing in the affected ear.•

955 Paulsen Medical and Dental Bldg. (1).

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Peritoneoscopy in the Study of Liver Disease

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Among the many problems that fascinate, puzzle and bedevil the physician, that of the differential diagnosis of liver disease ranks high.

Faced with a patient suspected of having liver disease, we proceed in an orderly fashion to fit the evidence together. We question; we examine; we order batteries of laboratory tests; we make x-rays. Then we correlate our data.

Usually, at this point, we can reach a conclusion. We can decide, for example, that one patient's jaundice is due, probably, to hepatitis, and that another probably has stones in his common duct. We can reason that a third patient's varices and ascites mean that he has portal hypertension from obstruction of the veins in the liver as a result of cirrhosis and that on the other hand, a fourth probably has extrahepatic obstruction because his liver has always functioned properly.

Most of the evidence we accumulate when we study liver disease indicates that certain functions of the liver are either normal or deranged. Most of our diagnoses, however, are anatomic diagnoses. They indicate pathologic anatomy rather than pathologic physiology. To convert physiologic evidence to anatomic conclusion, we must employ the process of reasoning. We must say that these changes in physiology usually are associated with those changes in anatomy and it probably holds true this time, too. Therefore, given this set of tests of function, we can conclude that such and such is the anatomic state of affairs. Then we have the diagnosis.

With a number of variables involved, it is apparent that there will be times when the deduced anatomic diagnosis is not the same as the actual anatomic diagnosis. There will be a certain margin of error. To reduce that margin of error to the absolute minimum, to put the diagnosis of liver disease on a firm anatomic footing, it becomes necessary to examine the anatomy of the liver. We would like to look at the liver both in its gross state and under the microscope. Often, to get information about the liver we would like to examine the gallbladder directly and by x-rays. Sometimes we would like to examine the spleen and, if possible, to make x-rays of the splenic and portal venous systems. Thus, by using any and all of the means for study we have at our disposal we can better determine the proper diagnosis, the prognosis and the treatment in this most difficult group of patients.

Available Methods

Three methods of examining the anatomy of the liver are in general use. The first of these, blind needle biopsy, has been practiced on the medical wards for a number of years. By a minimal procedure, it is possible to obtain a sample of the liver which may be of great help in making a definitive anatomic diagnosis. It is inexpensive, not time consuming and only slightly painful. On the other hand, it gives, at best, a tiny random sample of a very large organ. Taken blindly, the needle biopsy may not give a true picture of what is going on in the rest of the

liver. Disease in the liver may well be missed, as in patients with metastatic carcinoma. While the hazard is minimal, vital structures within the liver or in its neighborhood may be injured; every report of a large series of blind biopsies will include patients who come to grief as a result. Major vessels and major bile ducts have been injured with resulting hemorrhage or bile leakage.

At the other end of the scale from blind needle biopsy, there is laparotomy. Having proceeded to an end point from physiologic deduction and with the diagnosis remaining in doubt, prognosis and treatment cannot be outlined rationally. What is more natural under the circumstances than for the surgeon to want to make a small incision and take a look?

The small incision, made with local anesthesia, has the advantage of low morbidity and the disadvantage of low visibility. We can take a sample of part of the liver and look at the gallbladder and even do cholangiograms through the gallbladder if indicated. With the small incision, however, we can not examine the whole liver as well as we would like, and the small incision leads to an almost irresistible temptation to make a larger incision to get a hand in the abdomen and feel around. Then we have done a full scale laparotomy with its attendant morbidity in a group of patients often already seriously ill of their disease.

Advantages of Peritoneoscopy

Finally, there is peritoneoscopy, which is ideal in the study of the anatomy of liver disease. Utilizing the peritoneoscope, we are able to see the surface of both lobes of the liver, examine the gallbladder in a high percentage of patients, take specimens of the liver in the areas which appear involved by disease, inject radiopaque material into the gallbladder to visualize the biliary tree, and make splenoportograms by introducing a needle into the spleen under direct vision and injecting radiopaque material into the portal venous system.

We gain useful anatomic information by looking at the liver through the peritoneoscope. Size of the liver, its color, amount of fat present, degree of replacement by fibrous tissue, amount of gross liver necrosis, extent of regeneration, presence or absence of malignancy—all these serve to put the diagnosis of liver disease on a firmer footing. Excellent photographs of liver disease can be made through the peritoneoscope and are useful aids for teaching.

While looking at the liver, one can direct the Silverman needle to that part of the liver showing disease. At the same time, puncture of vital structures can be avoided. You can hit the places you want to hit and miss the places you want to miss. In metastatic malignancy, as an example, a nodule the size of a match head can be sampled for microscopic examination.

The consistency of the liver can be determined by the manner in which the needle cuts. The fatty liver of the alcoholic cuts like butter, it bleeds, and the needle hole collapses when the needle is withdrawn. Should it bleed longer than seems proper, the needle may be reintroduced into the hole and hemostasis awaited. The cirrhotic liver, on the other hand, cuts with difficulty. When the needle is removed there is minimal bleeding and the hole stays open like the hole on a golf green.

Usually the gallbladder can be seen at peritoneoscopy and excellent cholangiograms made by injecting radiopaque material into its lumen. Stones in the common duct, suspected by previous study but not proven, may be shown, or their absence may be demonstrated in patients suspected of having them. Thus the patient may be spared a more serious and costly operation.

My experience with splenoportograms has been nil. Kalk, who invented the peritoneoscope and who has used it in over 4,000 examinations of patients with suspected liver disease, has developed the technique of inserting a spinal needle into the lower pole of the spleen under direct vision, measuring the venous pressure in the spleen and injecting radiopaque material into the portal venous system to demonstrate, by x-ray, the presence of varices and the site of obstruction in the portal venous system. Information thus obtained is essential to a decision as to whether spleno-renal or portocaval shunts or neither, can be accomplished.

Complications

Nothing we do is free of complications, nor is peritoneoscopy. Kalk reports 5 complications in over 4,000 examinations, including bleeding, bowel perforation and air embolism. In my series, approximating one hundred, laparotomy was done once to arrest bleeding from the sur-

face of the liver which was injured during introduction of the scope, a technical error charged to early inexperience. One patient on whom cholangiograms were made by inserting a needle into the gallbladder, leaked bile on the night of peritoneoscopy. Cholecystostomy was done on the obstructed gallbladder. Aside from these there have been no major complications. Occasionally patients have shoulder pain and peritoneal irritation from air introduced into the abdomen or from bleeding. Rarely there may be subcutaneous emphysema which has not been cause for concern. That the morbidity is low is evidenced by the fact that over half of the patients reported here were discharged from the hospital the day after peritoneoscopy was done. Patients can be told with assurance that they may leave the hospital within 48 hours of the examination as far as peritoneoscopy and liver biopsy are concerned. Rarely has a longer period of convalescence from the examination been necessary.

All specimens obtained by needle biopsy under direct vision through the peritoneoscope were considered to be adequate for examination and no pathologist was unwilling to make a diagnosis because the specimen given him was not sufficient for examination.

The report of microscopic examination of biopsy specimens correlates closely with the diagnosis made on inspection of the liver through the peritoneoscope. In only two patients was there total disagreement. Once a specimen for biopsy was taken from the liver nodule which was obviously malignant on gross examination but microscopic examination showed no carcinoma in the tissue removed. The patient died later with metastatic carcinoma in the liver, so the error was one of missing the disease with the needle, as is so apt to occur with blind needle biopsy. The other patient's liver was greatly enlarged, was grey in color but showed no nodules; it was believed that no malignancy was present. Biopsy showed extensive involvement with carcinoma and he too died of his disease shortly thereafter.

The following reports illustrate the value of peritoneoscopy.

CASE REPORTS

Case 1. A 66 year old female had known gall stones for 20 years and a history of jaundice of three days duration. Extensive studies led to a diagnosis of parenchymatous jaundice, possibly associated with common duct stones. Peritoneoscopy was done in preference to laparotomy. The liver was small. Its surface was finely granular with small nodules of regenerating tissue. The needle introduced into the liver cut with resistance, characteristic of cirrhosis. Radiopaque material was injected into the gallbladder and three stones were visualized in the gallbladder by x-ray. The common bile duct was seen to be normal in size with no evidence of stone or obstruction (Fig. 1). Pathologic diagnosis was cirrhosis with associated hepatitis.



Fig 1. Cholangiogram through peritoneoscope showing stones in the gallbladder and a normal common duct.

Ths patient was spared the expense and danger of laparotomy, with an accurate diagnosis being made.

She died three months later. Autopsy diagnosis of portal cirrhosis with subacute hepatitis was made. The gallbladder contained three stones. The common duct was of normal size and no stones were present.

Case 2. A 55 year old female entered a hospital in July 1951 with a history of 18 months generalized malaise and weakness. Her liver was enlarged 4 cm. below the right costal margin and 6 cm. below the left. Red blood count was 3.3 million; hemoglobin 65 per cent; bilirubin 1.26 direct, 1.8 mg. total. Bromsulphalein retention was 24.4 per cent. Cephalin flocculation was 3 plus in 24 hours, 3 plus in 48 hours. Examination showed a mass in the rectal wall from which a biopsy specimen was taken. It was called atypical malignant lymphoma. She was treated for a year with x-ray therapy to the epigastric mass, presumed to be malignant lymphoma, but returned to the hospital in November 1952 with ankle edema, ascites, jaundice, and a large liver. Direct bilirubin was 3.3 mg., total 4.9 mg.; red blood count 3.4 million; hemoglobin 68.5 per cent; protein 7.2; albumin 2.3; globulin 4.9. Alkaline phosphatase 13 KA units; cephalin flocculation 2 plus in 24 hours, 3 plus in 48



Fig. 2. Cholangiogram through peritoneoscope showing dilated common duct with distal obstruction and stone at the junction of the cystic and common ducts.



Fig. 3. Cholangiogram in a cirrhotic patient suspected of having extrahepatic biliary tract obstruction. The gallbladder is normal. The common duct is normal in size and contains no stones. There is no obstruction.

hours. Peritoneoscopy in November 1952 showed a liver two to three times normal size with thickened edges and a grossly nodular surface, typical of Laennec's cirrhosis. Needle biopsy was taken. The pathologist's report was peri-insular cirrhosis.

The patient had a prolonged course following this examination. She eventually died as a result of cirrhosis two years later, having required multiple abdominal paracenteses. No evidence of lymphoma was ever found.

Earlier more critical evaluation of the cause of her enlarged liver would most certainly have contributed to her welfare.

Case 3. A 70 year old female was seen first in November 1955 because of jaundice. Studies indicated obstructive jaundice, cause undetermined. Peritoneoscopy showed the liver to be of near normal size and color, with no evidence of metastases. The gallbladder was collapsed and showed no evidence of bile in its lumen. A diagnosis of common duct obstruction proximal to the point of entrance of the cystic duct was made. The peritoneoscope was withdrawn and laparotomy carried out. A giant follicle lymphoma was found with complete obstruction of the common hepatic duct by a mass the size of a small orange. Choledochojejunostomy was carried out followed by radiation therapy.

In this instance, peritoneoscopy was done just prior to laparotomy to clarify the diagnosis and to determine whether more extensive surgery was indicated. Had she had extensive liver metastases from carcinoma, no laparotomy would have been done. The same principle has been applied to patients with carcinoma of the stomach to decide whether gastrectomy will be fruitless.

Case 4. A 67 year old male was referred with a story of increasing fatigue and a large mass in the right side of his abdomen, both having occurred over a three month period. His right eye had been enucleated eight years before, presumably for a tumor but the pathologic diagnosis was not known. Peritoneoscopy showed a tremendously enlarged liver with many small flat coal black nodules giving the gross appearance of melanomata. Biopsy specimens were diagnosed as metastatic malignant melanoma in the liver.

Conclusions

Peritoneoscopy in the study of liver disease gives information of great value in establishing diagnosis, prognosis and treatment. It is far superior to blind needle biopsy, yet only slightly more taxing on the patient's health and resources. Its morbidity is much less than that of laparotomy, yet the information obtained is considerably greater than in the small scale laparotomy and just as satisfactory as at full scale laparotomy.

Peritoneoscopy is as logical as other methods of endoscopic examination. By using it, the anatomy of liver disease can be correlated with the results of functional tests. Total evaluation of the status of the liver will help to establish the proper diagnosis, prognosis and treatment to the advantage of the patient and his physician.•

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Evaluation of the Bentonite Flocculation Test in Rheumatoid Arthritis

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Recent biochemical and immunologic studies of the sera of patients with rheumatoid arthritis have resulted in a number of extremely interesting and exciting findings. It is now well established that such sera contain a factor which, in a high percentage of cases, agglutinates sensitized particles, such as bacteria, erythrocytes, collodion, latex, and other substances.

First clue to the presence of this factor was obtained by Cecil[1] in 1930. Waaler,[2] in 1940, first used sensitized sheep cells in the reaction. In the past 10 years, there has been increasing interest and effort by many investigators in various modifications of these serologic reactions. Rose, *et al.*[3] popularized the Waaler reaction in 1948 as a diagnostic test for rheumatoid arthritis. Heller, Jacobson, and Kolodny[4] in 1949 modified the Waaler-Rose test by absorption of the heterophil antibody of sera with packed sheep cell erythrocytes. Winblad[5] and Heller, *et al.*[6] demonstrated that certain sera had the property of inhibiting the sheep cell agglutination reaction, suggesting that certain gamma globulins were in competition with the sensitized sheep cells for the rheumatoid factor. As a result of this, it was observed that Fraction II of human sera could be attached to tannic acid treated cells[6] and to latex particles (Singer and Plotz),[7] and that these sensitized particles would react with the rheumatoid factor also. The method of Singer and Plotz utilizing the latex particles is a practical laboratory procedure and has been further modified by Rheins, *et al.*[8]

Ziff, *et al.*[9] made another interesting observation that the euglobulin fraction of many nonrheumatoid sera when allowed to react with a known positive rheumatoid serum inhibited the agglutination of sensitized sheep cells, whereas the same euglobulin fraction from rheumatoid sera did not inhibit the reaction. With this test, approximately 98 per cent of patients with definite rheumatoid arthritis gave positive reactions. This method, however, is technically difficult to do and has not been a practical one so far. Epstein, *et al.*[10] have shown that a precipitation reaction can be obtained between certain gamma globulins and the rheumatoid factor.

Experimental Findings

The experimental findings may be summarized as follows: (1) The serum rheumatoid activity (rheumatoid factor) resides in the globulin fraction and is not associated with the albumin proteins. (2) This rheumatoid factor is a large gamma globulin molecule with an ultracentrifuge sedimentation characteristic of 19-S as shown by Franklin and Kunkel.[11] (3) A second substance is also encountered in the gamma

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globulin fractions of most normal individuals which interacts with the rheumatoid factor and can be employed in specific tests for it. This material has been called various names, depending on the methods employed in obtaining it, such as Fraction II (Cohn), euglobulin fraction, reactant, and inhibitor substance. Whether the small molecular 7-S gamma globulin, as described by Franklin and Kunkel, is the active material in all these globulin fractions is not certain at present. It appears to circulate in a loose complex with the rheumatoid factor when this is present. (4) The various methods of establishing the presence of the rheumatoid factor include agglutination of sensitized antibody coated cells, or particulate bodies, a precipitation reaction with gamma globulin, and the inhibition of agglutination by gamma globulins from certain normal sera.[5]

The exact antibody-antigen characterization of these reactions is obscure at this time. Indeed there is some evidence, such as the absorption of the rheumatoid factor by unrelated antigen antibody precipitates as shown by Vaughan,[12] suggesting the rheumatoid factor may actually be a kind of complement rather than a true antigen or antibody. Vaughan[13] has also recently shown that sera with low or absent gamma globulin fails to inhibit the rheumatoid agglutination reaction, and that inhibition activity is present in normal sera containing 7-S gamma globulin. In addition to this, Gofton, Robinson, and Thomas,[14] have found evidence that the rheumatoid factor apparently interacts also with polysaccharide components of joint fluid.

Interest in the rheumatoid factor exists not only because of its importance from a diagnostic standpoint, but also because of its possible role in the pathogenesis of the disease. There is a distinct possibility that intravascular reaction between the rheumatoid factor and the gamma globulin reactant might occur in the arteritic phase of rheumatoid arthritis.

Serologic Tests

The application of the serologic tests presently being used for rheumatoid arthritis in a general laboratory has been a difficult one. The modified sheep cell agglutination and the latex fixation test have proved the most useful to date. The sheep cell test is time consuming and not economically practical for most laboratories. The latex test has been satisfactory and can be completed in a few hours. Certain recent modifications of this test have made it more simple and practical.

Recently Bozicevich and Bunin[15] have described a simple, rapid method utilizing bentonite particles, sensitized with Fraction II, which can be completed in 20 to 30 minutes.

It is the purpose of this paper to present the results of the bentonite flocculation test in a series of 180 patients with rheumatic complaints. The study also presents a comparison of simultaneous determinations (on frozen serum) of the sheep cell agglutination test as modified by Ziff[9] and the bentonite flocculation test on frozen sera of 118 patients.

Methods

1. Sheep cell agglutination, Ziff modification. The serum is inactivated for 30 minutes at 56 C., and then adsorbed twice with packed cells (sheep) to remove the heterophil antibody. This is carried out for 1 hour at 37 C. Rabbit anti-sheep cell serum (amboceptor) is made up in dilutions of 1:100, 1:200, 1:300, and so forth. To this is added a 3 per cent sheep cell suspension. This will demonstrate the basic agglutination titer of the red cells. The sensitized sheep red cells are then prepared by mixing a 3 per cent suspension of the cells with amboceptor at 1/2 dilution of the basic agglutination titer, at 37 C. for 30 minutes. The sensitized sheep cells are then added to the adsorbed patient's serum in dilutions beginning at 1:14 and carrying through to 1:1792. The end point is clear cut as is shown in figure 1.

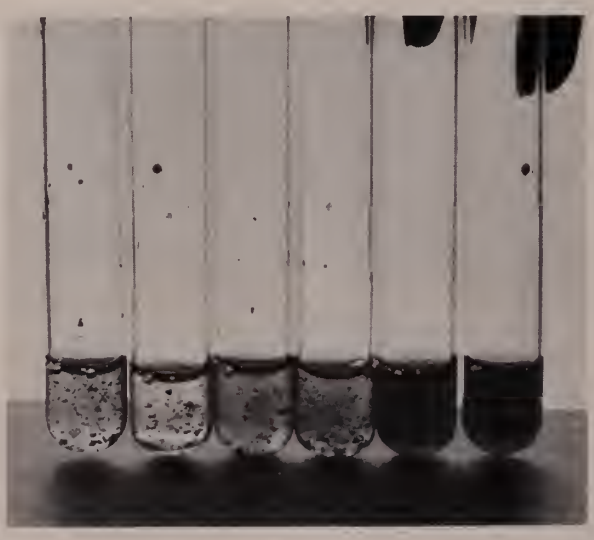


Fig. 1. Shows sheep cell agglutination reaction positive at a 1:56 dilution.

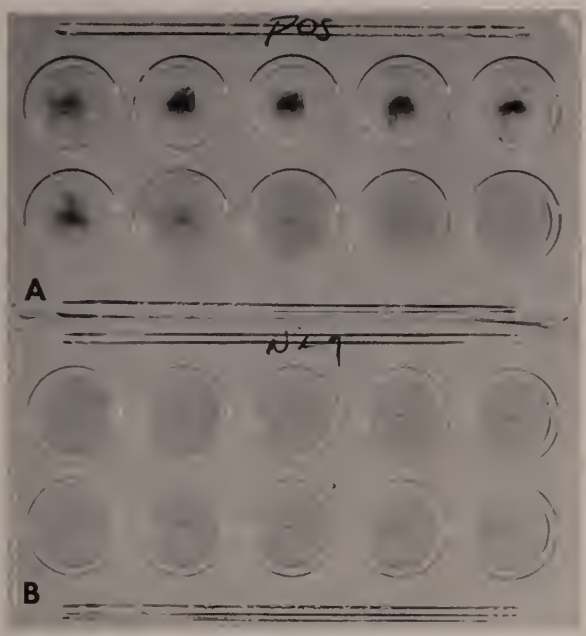


Fig. 2. Bentonite flocculation test: (A) Positive at dilution 1/128. (B) Negative reaction.

2. Bentonite flocculation test.

This test was done exactly as recommended by Bunim[16] and involves the use of sensitized bentonite particles obtained by mixing gamma globulin (Fraction II) with the bentonite suspension obtained by proper centrifugation (particles thrown down between the speeds of 1300 to 1600 r.p.m.), coloring the particles with methylene blue, and adjusting the *p*H to 7.3 along with the addition of Tween 80 as a wetting agent. This sensitized particle solution appears to be stable for at least 3 weeks, and when added to inactivated patient's serum, results in a flocculation reaction with certain rheumatoid sera. The test is set up in a standard 10 place serologic slide. Figures 2 and 3 illustrate details of the reaction.

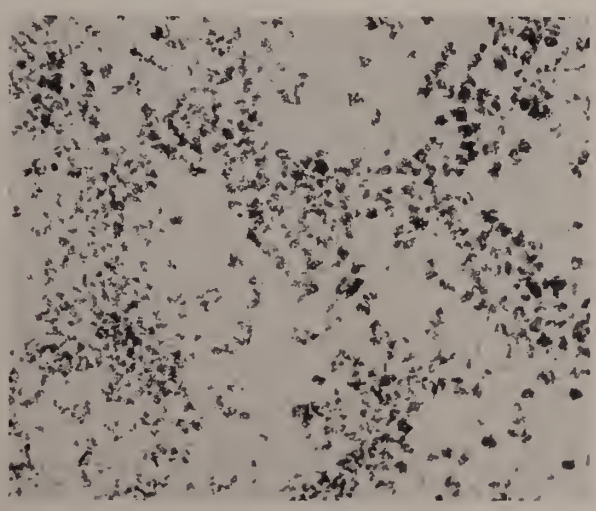
The reaction is graded as 4+ with complete clumping, 3+ with 3/4 clumping, 2+ with 1/2 clumping, 1+ with 1/4 clumping, and 0 with all the sensitized bentonite particles in colloidal suspension. The serum dilutions are 1/2, 1/4, 1/8, 1/16, 1/32, 1/64, 1/128, 1/256, 1/512, and 1/1024. To be considered a positive flocculation test. a 2+ or stronger clumping must occur at a 1/32 or higher dilution.

Clinical Criteria

The patients in this series of cases with rheumatoid arthritis were selected according to the clinical criteria set up by the American Rheumatism Foundation. To be considered as having definite or unequivocal rheumatoid arthritis, the patient had to have at least five of the criteria summarized in table 1. Complete details in regard to these can be found in the report of the study group on rheumatic diseases.[17] Patients having less than five of the criteria were listed as either probable or possible. In this report it

Table 1. Clinical Criteria for Reumatoid Arthritis Set Up by American Rheumatism Foundation (Summary).

1. Morning stiffness
2. Pain & joint tenderness
3. Soft tissue swelling in one joint
4. Swelling in another joint in less than 3 mos.
5. Symmetrical joint involvement excluding terminal joints
6. Subcutaneous nodules
7. Typical x-ray changes
8. Positive serologic test
9. Positive synovial membrane biopsy
10. Positive nodule biopsy



4+ Clumping



Negative

Fig. 3. Microscopic appearance of bentonite flocculation test.

was not worth-while from a statistical standpoint to separate these latter two groups.

Results

Table 2 shows the results of the bentonite flocculation-sheep cell agglutination comparison with simultaneous tests on 118 frozen sera. These

Table 2. Bentonite-Sheep Cell Comparison.

	Cases
Positive Correlation	114 (97.4% of total)
Sheep Cell +, Bentonite 0	3 (1 def., 1 def.+ Rh.Sp., 1 prob.)
Sheep Cell 0, Bentonite +	1 (pos. Rh., or Reiter's)
Total	118

results were obtained from both positive and negative sera of patients with rheumatoid arthritis and other rheumatic diseases. Purpose of this portion of the study was to compare the effectiveness of the bentonite test with the standard modified sheep cell test done in this laboratory. The bentonite test was in agreement with the sheep cell test, whether positive or negative, in 114 of the 118 cases. In 3 cases the sheep cell test was positive and the bentonite test was negative. In this group, there was one definite rheumatoid arthritis case, one definite rheumatoid arthritis plus rheumatoid spondylitis, and one probable rheumatoid arthritis. In only one instance was the sheep cell test negative and the bentonite test positive. This patient had possible rheumatoid arthritis or Reiter's syndrome.

Tables 3, 4, and 5 show the results of the bentonite flocculation test in the entire series of 180 patients with rheumatoid complaints. There

Table 3. Bentonite Determinations in 180 Patients.

	Cases
Rheumatoid Arthritis— Definite, Probable, Possible	71
Rheumatic Diseases other than Rheumatoid Arthritis	109
Total	180

were 71 patients considered to have either definite, probable, or possible rheumatoid arthritis. One hundred and nine patients were considered to have rheumatic diseases other than rheumatoid arthritis. In the rheumatoid arthritis group, as shown in table 4, there were 35 who were in the definite unequivocal rheumatoid arthritis

Table 4. Rheumatoid Arthritis.

	Cases	%
Definite Group	35	
Positive Clinical Bentonite Correlation	27	77
Probable, Possible Group	36	
Positive Clinical Bentonite Correlation	11	30

group category. In this group of patients, 27 of the 35 had a positive clinical bentonite correlation. The probable-possible groups are listed together as these were all cases in which there were varying degrees of doubt as to the diagnosis of rheumatoid arthritis. There were 36 patients under the probable-possible group, with a positive clinical bentonite correlation in 11. This latter figure indicates that the test was of some help in approximately one out of three patients with suspected rheumatoid arthritis.

Table 5 lists the 109 patients with rheumatic diseases other than rheumatoid arthritis. In most

Table 5. Rheumotic Diseoses Other Thon Rheumotoid Arthritis.

Rheumotic Diseose	Coses	Results of Bentonite and Sheep Cell Tests
Osteoarthritis	29	All BTN tests 0 All SC tests 0
Gout	10	All tests 0
Rheumatoid Spondylitis	8	All tests 0
Psoriatic Arthritis	1	BTN 0
Rheumatic Fever	3	BTN 0
Arthralgia	33	BTN tests + (1) SC tests + (2)
Myositis, Fibrositis	13	All tests 0
Backache	4	All tests 0
Temporomandibular Arthritis	1	BTN 0
Dermatomyositis	1	BTN & SC 0
Bursitis	2	BTN 0
Tendonitis	1	BTN 0
Shoulder-Hand	1	BTN 0
Tuberculous Arthritis	1	BTN 0
Malum Coxae Senilis	1	BTN 0

of these diseases an insufficient number of tests was done for any statistical significance to be attached to the results. However, in osteoarthritis there were 29 patients. In this group, all the bentonite tests were negative. In the other large group of patients with arthralgia, two positive reactions were obtained. In one of these, the bentonite test was positive and in the other, both the bentonite and the sheep cell test were positive.

Discussion

The results found in this series of patients add further supporting evidence that the bentonite flocculation test is a practical and reasonably

reliable procedure in the serologic testing of patients with rheumatic complaints. One of the most important findings in regard to the rheumatoid factor and serologic tests has been that false positive reactions rarely occur. The survey of 109 patients with rheumatic complaints resulting from diseases other than rheumatoid arthritis is certainly in agreement with the low incidence of false positive reactions observed by other laboratories. Admittedly, it would be extremely desirable for the test to be positive in a higher percentage of unequivocal rheumatoid arthritis cases. However, there are few tests in medicine that are this specific. It has been shown that certain modifications of the rheumatoid reaction, such as the inhibition test, will result in approximately 90 to 95 per cent clinical correlation with known rheumatoid disease. Such procedures have not been economically feasible or practical for most clinical laboratories. The bentonite modification, as described by Bunim, fits the criteria of a useful test. There are few clinical laboratory tests that are infallable and the bentonite test is no exception. However, when serum of a patient with rheumatic complaints contains the rheumatoid factor, one should consider that this patient has rheumatoid arthritis until proven otherwise. Bunim has also found the test positive in a significantly high percentage of patients with disseminated lupus erythematosus and scleroderma.[16]

It is now evident that positive reactions are more likely to occur in advanced cases, but have been reported at the onset of rheumatoid disease. In addition to this, the degree of agglutination is not necessarily related to the severity, or activity, of the disease as determined clinically. It is believed that the results in this series of patients are in general accord with those seen in similar larger series studied by other serologic types of rheumatoid tests.

Summary

(1) The bentonite flocculation test in this series of cases was as reliable as the modified sheep cell agglutination test. (2) The bentonite test is valuable clinically in the diagnosis of rheumatoid disease. (3) The test was uniformly negative in rheumatic diseases other than rheumatoid arthritis. (4) The test is considerably less time consuming than the sheep cell agglutination test and can be done as a routine test in rheumatic diseases. (5) The bentonite flocculation test was positive in 77 per cent of the definite rheumatoid arthritis cases. (6) The test was helpful in diagnosis of one out of three patients with probable or possible rheumatoid arthritis. •

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Addendum

Hall, Mednis, and Bayles (New England J. Med. 258:731-735, April 10, 1958) have currently reported an extensive series of cases using a modified latex agglutination and inhibition reaction. This method appears a more practical one than the sheep cell inhibition test. The test is positive in over 99 per cent of known rheumatoid arthritis cases. However, it is a more complex procedure. It may be possible to adapt the bentonite test in a similar fashion.

Intravenous Use of Azacyclonol

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Physiodynamic therapies formerly referred to as the somatic treatment methods have opened a new era within the field of psychiatry. It is reasoned that the basic assumptions behind the physiodynamic therapies imply that mental disturbances are disturbances of the brain, and that their origin is to be sought in the physiopathologic, organic, sometimes histologic, and always endocrinologic and biochemical substratum of the phenomenon of consciousness. While for the past two to three decades the accepted theories among the so-called organicists in psychiatry have been that either coma or convulsions or both are necessary to treat or to influence the course of the major psychoses, more recently there has been a trend of broadening the therapeutic spectrum and a tendency toward the use of treatments less severe than generalized convulsions and deep coma. Several somatic modifications such as subcoma insulin, non-convulsive electric stimulation, carbon dioxide inhalations, and others, have been introduced, but the actual impetus of a drastic change came with the advent of pharmacotherapy. Through these new methods, it is now possible to investigate scientifically the physiologic mechanisms involved in severe mental illness and to develop a true laboratory background for therapeutic rationale.

During the past years many useful drugs have been introduced for treatment of the emotionally and mentally ill, and some of them have found a definite place in psychiatry. However, it must be mentioned that if any drug is to be considered of real value in the treatment of mental illness, it must be capable of relieving patients of the severe manifestations of such illness. Most particularly it should relieve the delusional and hallucinatory phenomena and the behavioral distortions which represent the sensory and motor aspects of mental illness, respectively. The effect on such manifestations must be of sufficient magnitude to represent large-scale social gains to the patient. Ideally, it should be effective, not only in psychotic states of recent origin, but also in those which have persisted over extended periods since it is these latter conditions which still represent the greatest challenge to psychiatry.[1]

Among the various groups of drugs introduced during the past few years, the tranquilizers are without any doubt the most popular and the most fashionable. These "happy pills" or "how-to-get-through-the-day pills" have been used extensively with more or less favorable results in so-called anxiety and tension states, and in various psychosomatic disorders but, with the possible exception of chlorpromazine, have had very little success in the major mental disorders. The mere fact that one day they are praised as miracle drugs and the next they are decried as dangerous and a threat to civilization itself makes their status rather confusing or even bewildering. They have undoubtedly broadened our therapeutic range and have certainly been a boon to mental hospital management. But they also carry with them certain disadvantages and dangers, not only in regard to inherent toxic manifestations. For instance, in tension states with depressive elements present, the so-called tranquilizers have definitely increased the depressive symptomatology, and in other cases

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have tranquilized the patient into a dull emotional state rendering definite psychiatric treatment more difficult.

Central nervous system stimulants in the form of the so-called anti-depressants have also found a place among the pharmacologic agents in psychiatry since they can be used fairly sucessfully in mild to moderate depressive states when not accompanied by undue anxiety. On the other hand, cortical stimulants seem to help in certain mild confusion states among the aged but actually no specific drug, until now, has been introduced to combat successfully, and on a permanent basis, acute psychotic and acute confusional states, regardless of the underlying psychopathology.

This paper concerns itself with a drug which recently has been used successfully in the treatment of acute psychotic and acute confusional states. It acts not only by immediately removing the hallucinations, delusions and confusion—the "melting away of the psychosis" as Fabing put it —but also by permanently producing a state of relative calm in the patients. This removes the barrier between the physician and patient to make follow-up psychotherapy possible. It then becomes possible for the patient to gain deeper and better insight into his condition. This drug is azacyclonol,* still one of the most controversial and disputed products on the market today. It has been labeled as an "interesting" drug, as the "most powerful anti-hallucinogenic compound," as the "most disappointing" drug, and as the "most variable" drug. It is the gamma isomer of pipradrol.** Despite the structural resemblance between the two drugs pharmacologically, their actions are entirely different. While pipradrol, a clinical anti-depressant, increases psychomotor activity, azacyclonol decreases spontaneous activities, and among other properties is reported to block schizophrenic hallucinations and delusions. Also it is an effective blocking agent against the development of psychoses produced with lysergic acid diethylamide and mescaline. Fabing[2,3] in his pioneer work with this drug reported in several papers how azacyclonol, administered intravenously, abruptly ended an LSD-25 psychosis. When given orally for one week prior to experimental induction he was able to almost completely prevent an LSD-25 psychosis. The same holds true for mescaline-induced psychoses and dissociation reactions. Shortly thereafter reports of clinical trials with azacyclonol began to appear. Fabing[4] and his co-workers as well as other investigators[5-10] reported that it was valuable in treatment of acute schizophrenic psychosis in which delusions and hallucinations were predominant symptoms; in toxic and the postoperative psychosis; in senile psychoses with confusion, disorientation and hallucinations; and more recently also in chronic schizophrenia, especially with regard to delusions, hallucinations, ideas of reference, and behavior.

*Frenquel for this study was kindly supplied by R. C. Pogge of the William S. Merrell Company, Cincinnati, Ohio. Frenquel is the trademark of The Wm. S. Merrell Company for its brand of azacyclonol.

**Meratran is the trademark of the Wm. S. Merrell Company for its brand of pipradrol.

Material and Method

This study concerns itself with the use of intravenous azacyclonol in 30 private patients. Nineteen were males and eleven females. Their ages ranged between 14 and 86. In this group there were 8 with acute schizophrenic reactions, 4 of whom could be classified, using Meduna's term, as oneirophrenia; 4 schizo-affective reactions; 8 senile confusional states; 6 postoperative psychoses; and 4 toxic psychoses. The intravenous dosage ranged from 40 to 100 mg. every four hours. Duration of treatment was from a minimum of 48 hours to a maximum of 13 days with average of 5 days. Seven of these patients, after completion of the course of intravenous azacyclonol were placed on an oral maintenance dose of 40 to 50 mg. four times a day for several months.

It should be mentioned here that azacyclonol, both via the intravenous and the oral route, has been tolerated well by all patients. No serious side effects or physical or toxic complications were encountered in this study, except for the fact that some of the patients complained of an unpleasant and bitter taste while taking it orally. There was no evidence of a hypotensive effect.

Results

Twenty-six of the 30 patients in this study have responded extremely favorably to intravenous administration in the doses mentioned above. The best results undoubtedly were found among the group of senile confusional states, the postoperative and the toxic psychoses. In all these patients the confusion and disorientation as well as the hallucinations and delusions disap-

peared within a very short time after a course of azacyclonol had been instituted. Their behavior, which could best be described as agitated-bewildered, immediately started to return to normal. The drug certainly produced a dramatic "melting away" of the psychoses. Among the patients with acute schizophrenic reactions, intravenous azacyclonol also produced remarkable improvement but did so somewhat slower. In 4 patients with schizo-affective reactions, except for the agitation, it did not appear to be of therapeutic benefit.

Eight patients were diagnosed as having acute schizophrenic reactions. In these the schizophrenic break came rather acutely. All of them showed definite symptoms of detachment and feeling of unreality, with delusions, hallucinations and marked confusion. None of these patients had received treatment for this acute break other than intravenous azacyclonol. Three of these 8 were classified as catatonic excitement states. In all of them the drug relieved symptoms over a period of several days. The following case is characteristic for this group.

CASE REPORT

A 15 year old high school boy suddenly became extremely agitated, was unable to sleep, refused to obey orders, and became extremely preoccupied with religious matters. He had delusions and hallucinations and was confused. He thought his father was Christ, and complained of a floating sensation and a feeling of detachment. He heard voices of the Prophets who told him that he was singled out to spread the gospel of the Lord. Although there had been a positive family history (one paternal aunt had been in a state hospital with a diagnosis of schizophrenia) the boy had never shown any abnormal behavior and had never shown any evidence of mental illness. He was considered to be very conscientious and an above average student. He had taken part in social and group activities. The boy was hospitalized and intravenous azacyclonol was started immediately. He was given 60 mg. four times a day. Within a period of 48 hours he seemed calmed down, his agitation had subsided and the confusion cleared up gradually. However, he still seemed hallucinated and had delusions. Intravenous azacyclonol was continued at the same dosage for another four days, during which period his delusions and hallucinations subsided entirely. It was then possible to reach him through psychotherapy. He was placed on an oral maintenance dose of 40 mg. four times a day and has been able to return to school where he is adjusting satisfactorily. He is taking part in recreational activities and also is very active in outside group activities. He is being followed at regular intervals in the office, and thus far, after a period of over eight months, has not shown any recurrence of any psychotic symptoms.

Eight patients were diagnosed as having senile confusional states characterized by confusion, disorientation and hallucinations. In all these 8 patients, the drug relieved symptoms immediately.

CASE REPORT

A 68 year old female had always been a rather active woman, helping her daughter in the latter's real estate business. She had been answering the phone in the office, and had been able to talk and answer questions intelligently. About three months prior to hospitalization she started to become somewhat confused and disoriented. She gave wrong answers over the phone and her daughter felt that "she was slipping." She was first taken to a general practitioner who dismissed her case as the result of anteriosclerosis. Approximately two months later she became acutely hallucinated both in the auditory and visual fields. She thought that Hindus were coming to her home at night, that it was her duty to feed and house them, and she also, when watching Liberace on television, claimed that he was talking to her and that he told her that she should get married to him. She became rather agitated and irritable when contradicted in regard to her delusions. She was hospitalized and intravenous azacyclonol was started immediately with a dosage of 80 mg. four times a day. It was continued for four days during which time her marked confusion as well as her hallucinations disappeared entirely and there was no further evidence of motor agitation or restlessness. She has maintained this improvement for over ten months now and has returned to helping her daughter.

All 6 patients with postoperative psychosis received benefit from the intravenous administration of azacyclonol. Their behavior, too, was characterized by marked agitation, restlessness and confusion as well as delusions and hallucinations.

CASE REPORT

A 79 year old, retired railroad man who always had been in excellent physical and mental health, became extremely agitated several days following a prostatectomy. He was restless, confused, deluded and hallucinated, and showed verbal and physical assaultiveness. While at a general hospital he became most unmanageable and in spite of physical precautions was able to get out of bed, slipped, fell and broke a hip. Because of his mental state no therapeutic measures could be instituted. For this reason he was first referred for psychiatric treatment. Intravenous azacyclonol was started immediately at the rate of 100 mg. four times a day. Within a period of 48 hours his psychotic state subsided entirely so that orthopedic surgery could be performed. He was placed on an oral maintenance dose of 20 mg. four times a day for a period of three weeks thereafter during which time he remained at the hospital for recuperation. He was then discharged, returned to his home, and is not showing any evidence of recurrence of a psychotic state.

The same immediate improvement was noted in the 4 patients in the toxic psychosis group.

In one of these the psychosis apparently was produced by a combination of chlorpromazine and alcohol.

CASE REPORT

This patient, when admitted to the hospital, was extremely agitated and hyperactive. He was dehydrated almost to the point of exhaustion and collapse. He was extremely deluded, hallucinated and showed marked ideas of reference. Because of his dehydration, in addition to intravenous azacyclonol, intravenous fluids with high doses of vitamins and amino acids had to be given. After 36 hours, the patient's psychotic state subsided and it was then possible to start psychotherapy with him. He has maintained the improvement over a period of nine months, although at times he becomes rather tense and shows a tendency to drink. At no time has he shown any further evidence of psychotic reaction.

In the group of schizo-affective reactions, as mentioned above, the drug only relieved the motor behavior in the agitated patient. Basic schizophrenic mechanisms, since they were of longer duration, were not affected by its administration. At least in this latter group it did not seem to be of any material value.

Summary and Conclusion

Intravenous azacyclonol has been used successfully in 26 out of 30 patients reported in this study. It was most effective in senile confusional states, postoperative psychosis, toxic psychosis and acute schizophrenic reactions. It did not produce any material benefit in schizo-affective psychosis, except for removing the agitation. In the former group it not only removed the delusions, hallucinations, and confusion and returned the patient to his normal state, but it did so in a very short time. No side effects have been found, and it can be considered as a very safe drug which appears to be specific for the treatment of acute psychotic and acute confusional states, regardless of the underlying causes or psychopathology.•

277 Paulsen Medical & Dental Bldg. (1).

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Gastrointestinal Hemorrhage Cases at The Swedish Hospital, Seattle

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Gastrointestinal bleeding continues to be a major medical surgical problem. It would be difficult to find a single issue of one of the major surgical journals which does not carry at least one article on bleeding from some portion of the intestinal tract. The appearance of blood or bleeding is one of the general basic surgical pathologic entities—i.e., hemorrhage, obstruction, perforation. Hence it is an ever present threat or entity.

The purpose of this paper is to present a statistical review to show the number of cases of gastrointestinal hemorrhage admitted to The Swedish Hospital from 1952 to 1955, location of the lesion, method and accuracy of diagnosis, management, mortality, and comparison of similar studies made in other hospitals.

The material for this study includes 303 cases diagnosed "gastrointestinal hemorrhage" on the front sheet of the chart regardless of whether it was a massive, obscure, or recurrent hemorrhage.

Table 1 shows the breakdown of males and females in their respective diagnoses as to etiology and site. It is seen that males are afflicted in a ratio of three to one with females for duodenal ulcer, one and one-half to one for gastric ulcer, and three to one ratio for gastrointestinal hemorrhage site unknown. Although the number of cases are few, it is interesting to note that in this study females outnumbered the males in esophageal varices by a ratio of two to one. Diaphragmatic hernia, gastritis, and ulcerative colitis also were diseases which favored the female by a ratio of two to one. The remaining sex distribution showed no real favoritism. The miscellaneous group, totaling 12, included 1 case of leiomyoma of the stomach, 1 case of acute indigestion, 1 case of a bleeding ulcer of the rectum, 2 cases of leukemia, 1 of Hodgkin's Disease, 1 with dicumarol intoxication, 1 with periarteritis nodosa, 1 with polycythemia vera.

Table 1. Sex Distribution as to Etiology and Site of Hemorrhage.

Diagnosis	Males	Females	Total
Duodenal ulcer	101	34	135
Gastric ulcer	29	19	48
Gastrointestinal hemorrhage site unknown	35	14	49
Esophageal varices	3	7	10
Diverticula of the colon	5	4	9
Diaphragmatic hernia with ulceration	2	6	8
Gastritis	2	6	8
Ulcerative colitis	2	5	7
Carcinoma of the rectum	1	3	4
Carcinoma of the stomach	1	3	4
Gastrojejunal ulcer	3	2	5
Esophageal ulcer	2	2	4
Miscellaneous	5	7	12
Total	191	112	303

Figure 1 indicates the age distribution for those treated medically and those treated surgically. For this chart only those patients with duodenal ulcer, gastric ulcer, and gastrointestinal hemorrhage sites unknown were used. These three groups comprise 72.5 per cent of the total number of cases. Since the ages are grouped in decades the remaining cases were too few in number to alter the curve.

From this curve, as might be expected, patients, both male and female, are more com-

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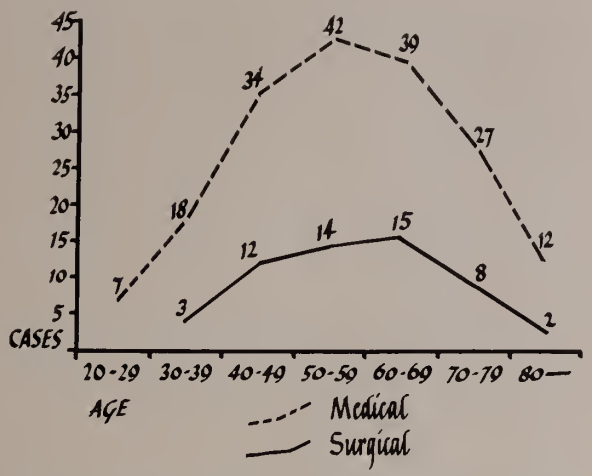


Fig. 1. Age distribution of patients treated medically and surgically.

monly afflicted with gastrointestinal hemorrhage in the sixth and seventh decades of life. The variance of the curve between those treated medically and those treated surgically is slight and thought to be of no significance.

Figure 2 is a schematic drawing of the gastrointestinal tract indicating the various sites of the lesions responsible for the gastrointestinal hemorrhage. The further breakdown of the number of cases and percentage of total for the various sites are as follows:

Table 2. Case Distribution os to Site of Hemorrhage.

Site of Lesion	Cases	%
Duodenal ulcer	135	44.6
Gastric ulcer	48	15.8
Gastrointestinal hemorrhage site unknown	49	16.1
Esophageal varices	10	3.3
Diverticula of the colon	9	3.0
Diaphragmatic hernia with ulceration	8	2.7
Gastritis	8	2.7
Ulcerative colitis	7	2.3
Carcinoma of the rectum	4	1.3
Carcinoma of the stomach	4	1.3
Gastrojejunal ulcer	5	1.6
Esophageal ulcer	4	1.3
Miscellaneous	12	4.0
Total	303	100.0

The miscellaneous group is the same as quoted in the paragraph on sex distribution.

At a glance it is thus seen that 72.5 per cent of all cases of gastrointestinal hemorrhage in this series were located between the lower esophagus and the ligament of Treitz. Seven per cent were located between the ligament of Treitz and the rectum. Unknown sites account for 16.1 per cent, and the miscellaneous group was 4 per cent of the total.

Pinpointing a lesion responsible for gastrointestinal hemorrhage is not always easy, for if an attempt is made at the time of acute bleeding the lesion may be obscured by the presence of blood. Under such conditions the radiologist feels that he has a 50 per cent chance of finding the lesion; if the examination is put off until

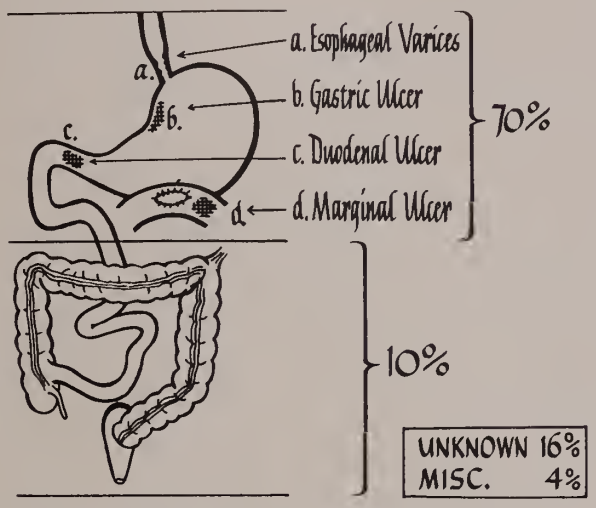


Fig. 2. Schematic illustration showing sites of hemorrhage.

bleeding has completely subsided, many times the lesion will have healed or have become so small that it is impossible to demonstrate. The history and physical examination give some indication as to site of the lesion; if hematemesis is the chief symptom, the lesion is usually in the upper portion of the gastrointestinal tract. If melena is the chief complaint, the lesion is in the distal portion. There are always exceptions to this rule of thumb. In addition to history and physical examination, other diagnostic measures utilized were x-ray studies of the upper and lower gastrointestinal tracts, esophagoscopy, and gastroscopic examination.

Table 3 is self explanatory in revealing the accuracy of diagnosis.

Table 3. Accuracy of Diagnosis.

Method of Diagnosis	% of Accuracy
1. Positive x-ray or endoscopy or both	80.7
2. Positive x-ray with no lesion found at surgery	3.2
3. Negative x-ray with positive lesion found at surgery	7.7

The remaining 8.4 per cent were treated without hospital x-ray, endoscopy or surgery.

Of the 303 patients in this series, 235 were treated medically and 68 were treated surgically. The overall operative rate was 22.4 per cent. Of the 235 treated medically, 10 had been treated previously by surgery. Table 4 is a further analysis of the division between medical and surgical treatment.

Table 4. Distributian of Medical and Surgicol Treotment.

Site of Lesion	Treated Medically	Treated Surgically
Duodenal ulcer	110	25
Gastric ulcer	37	21
Gastrointestinal hemorrhage site unknown	43	6
All others	45	16

The average number of transfusions for those patients treated surgically was 8, whereas for those treated medically it was 2.6 units. Of those patients treated surgically, 72.1 per cent had two or more admissions for gastrointestinal hemorrhage. Of the surgically treated patients, 82 per cent were not bleeding at time of surgery, whereas 18 per cent were still bleeding. In this series no blind gastric resections were recorded. Blind gastric resection was defined as the case of gastrointestinal hemorrhage in which history, physical examination, x-ray or endoscopic examination or both revealed no evidence of the site of bleeding and at the time of surgery no lesion was found, but a gastric resection was carried out.

There were 31 deaths in the series with an overall mortality of 10 per cent. On the medical service there were 21 deaths with the medical mortality being 8.9 per cent. Of the 68 surgically treated patients, there were 10 deaths with a mortality of 14.7 per cent.

Figure 3 shows the medical and surgical mortality by decade, the surgical mortality being greatest in the eighth decade whereas the medical mortality is spread out between the fifth and ninth decades. On the medical service, of the 21 deaths, 13 were due to exsanguinating hemorrhage, or 62 per cent of the medical deaths were due to hemorrhage. Esophageal varices and cirrhosis accounted for 2 deaths; peptic ulcer, 3; gastrointestinal hemorrhage site unknown, 2; malignancy, 3; miscellaneous, 3; and deaths from other causes, 8.

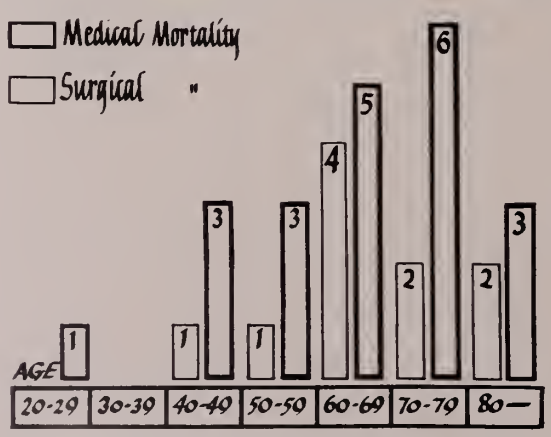


Fig. 3. Medical and surgical mortality by decades.

Tabulation of the number of admissions of these deceased patients revealed that 7 had been admitted once; 6 had been admitted on 2 previous occasions; 4 had been admitted 3 times previously; 3 had been admitted on 4 previous occasions; and for 1 patient the number of previous admissions was unknown.

In this same group of patients, 15 had evidence of only 1 previous hemorrhage, 3 had evidence of 2 previous hemorrhages, while 1 had 3 previous hemorrhages, and for 2 the number of previous hemorrhages was unknown.

On the surgical service, of the 10 deaths there were 3 which were due to exsanguinating hemorrhage, or 30 per cent of the deaths on the surgical service were from this cause. These 3 deaths were due to hemorrhage from peptic ulcer (either duodenal or gastric ulcer). The deaths due to other causes were 1 case from gas bacillus infection, 1 from a malignancy of the stomach, 1 from pulmonary embolus, 1 from cerebrovascular accident, 1 from renal failure and pseudomembranous enterocolitis, and 1 due to acute pancreatitis. Six of these patients had been admitted only once to the hospital, whereas 2 had been admitted on 2 previous occasions, 1 had been admitted 4 times, and 1 had 8 previous admissions. Hemorrhage had occurred once in 7 of these patients, 1 had 4 hemorrhages, and 1 had 8, and 1 an unknown number of hemorrhages.

Brick and Jeghers, from the Department of Medicine of Georgetown University Hospital, published a composite review of gastrointestinal hemorrhage.[1] The following is a comparison between their findings and those of this study.

Site of Lesion	Swedish Hospital %	Brick and Jeghers Study %
Gastrointestinal bleeding site known	83.6	85
Gastrointestinal bleeding site unknown	16.4	15

Our findings are similar to Loe's study published in July 1950.[2] He reviewed 94 cases of massive gastrointestinal hemorrhage between

1943 and 1949. In his series 73 per cent were due to various types of ulcers—duodenal, gastric, marginal, and diaphragmatic hernial ulcers; 27 per cent were due to varices, carcinoma, hemorrhage of site unknown, and miscellaneous. The overall mortality rate in Loe's study was 9.57 per cent.

Since completion of this study, 3 patients have had blind subtotal gastric resections for bleeding. We have no quarrel with this method of handling the problem provided the patient has been carefully and thoroughly explored, including the use of a sterile sigmoidoscope, before the surgeon makes the decision.

Conclusion

Gastrointestinal bleeding is a major medical-surgical problem. Of the 21 medical deaths, 13 or 62 per cent were due to exsanguinating hemorrhage; of the 10 surgical deaths, 3 or 30 per cent were due to exsanguinating hemorrhage. Of the 12 patients operated upon while bleeding, 3 or 25 per cent died from hemorrhage.

A diagnosis as to the site of hemorrhage can be made from the history, physical examination, and existing diagnostic procedures short of laparotomy in 80 per cent of the cases. Stabilization of the patient bleeding from the gastrointestinal tract is desirable and can be obtained in four out of five cases.

Of all bleeding, 75 per cent occurs between the lower esophagus and the ligament of Treitz.

Mortality for the disease increases with the age of the patient. •

1445 Medical-Dental Bldg. (1) (Dr. Speir).

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Medical Mahomets Go to the Mountain

An effective method of attacking the tough problem of maintaining personal contact, communications, and understanding between the state association and component county medical societies is now being used in Georgia.

The council of the Medical Association of Georgia is working under the concept that "if the mountain will not come to Mahomet, Mahomet will go to the mountain."

The council is now holding each of its regular quarterly meetings in a different city in the state. Members of the local and surrounding county societies are invited to attend these sessions to see at first hand the multiplicity of problems, complexity of the subjects, and the tremendous amount of work being done by the state officers and council.

"Too many doctors are extremely busy and have little time for reading," said Hal M. Davison of Atlanta, immediate past-president of the state society. "Our plan of moving the council meeting around the state is one of the best ways we have ever found to collapse distances and differences, thus avoiding misunderstandings between the state organization and the individual physicians of a county medical society."

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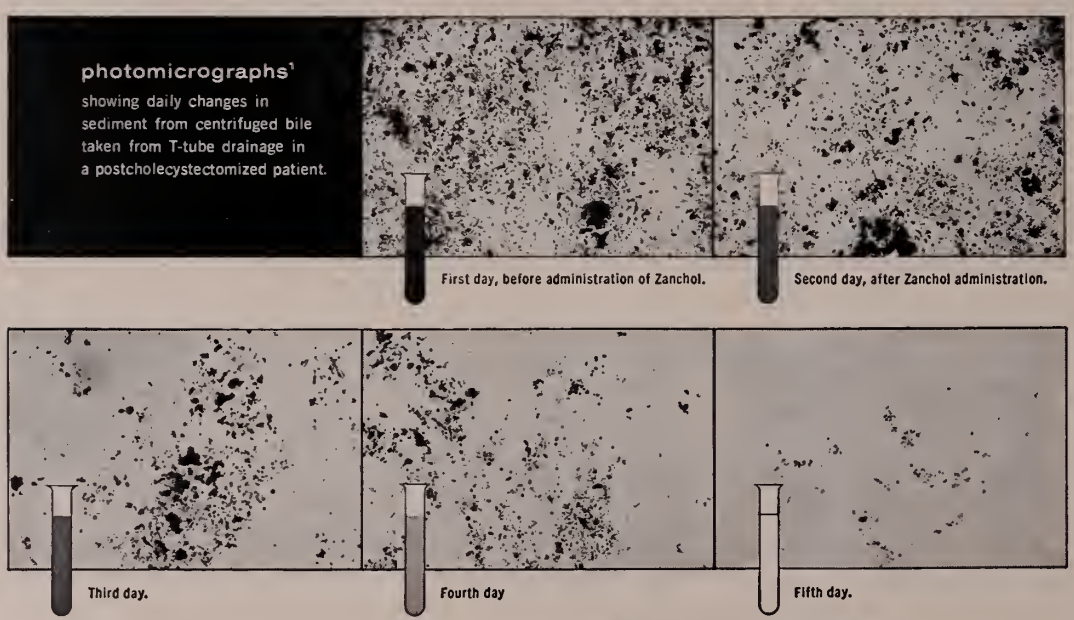
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Medical Indication for Zanchol
This includes the treatment of patients with chronic cholecystitis for which surgery is not required or may be impossible for any reason.

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Research in the Service of Medicine.



1. McGowan, J. M.: Clinical Significance of Changes in Common Duct Bile Resulting from a New Synthetic Choleretic, Surg., Gynec. & Obst. *103*:163 (Aug.) 1956.

SEARLE

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Fostex® degreases the skin and helps remove blackheads

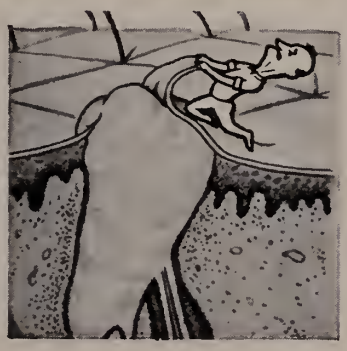


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◂ Penetrate and soften comedones, unblocking the pores and facilitating removal of sebum plugs.



Fostex dries and peels the skin

◂ The Sebulytic base of Fostex dries and promotes peeling of the skin . . . actions enhanced by the keratolytic effects of micropulverized sulfur and salicylic acid.

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for therapeutic washing of skin in the initial phase of acne treatment, when maximum degreasing and peeling are desired.

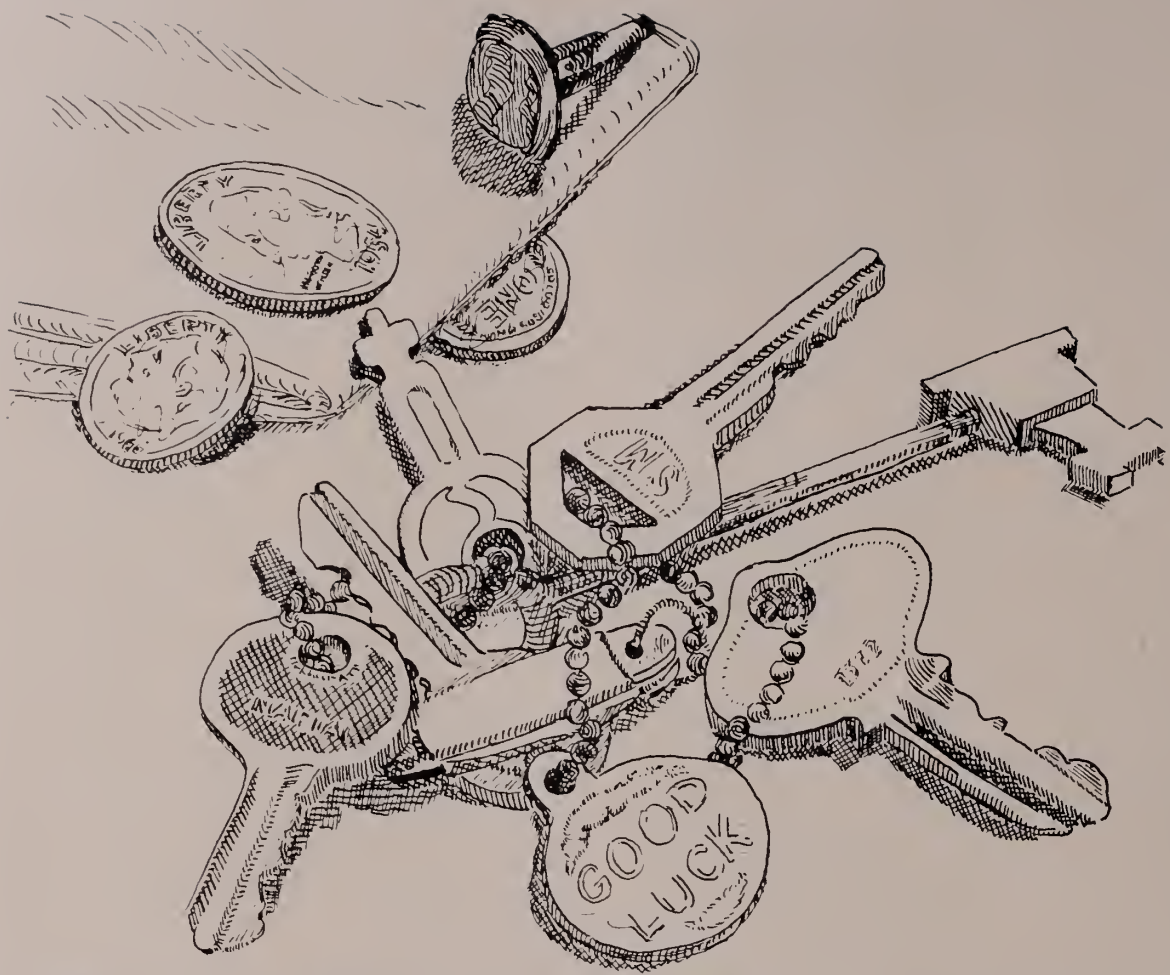
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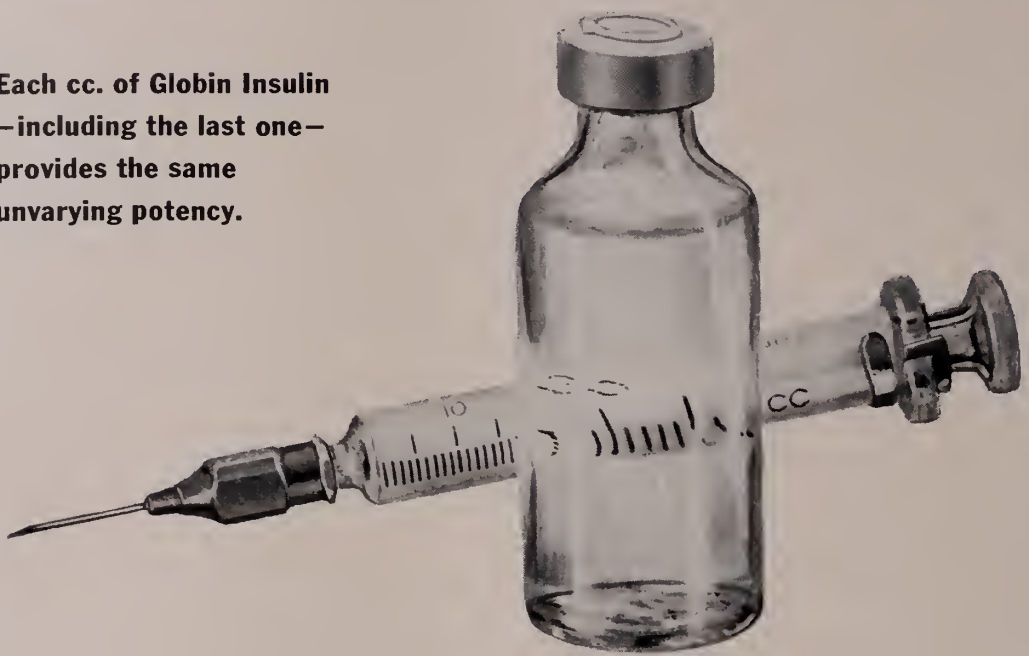
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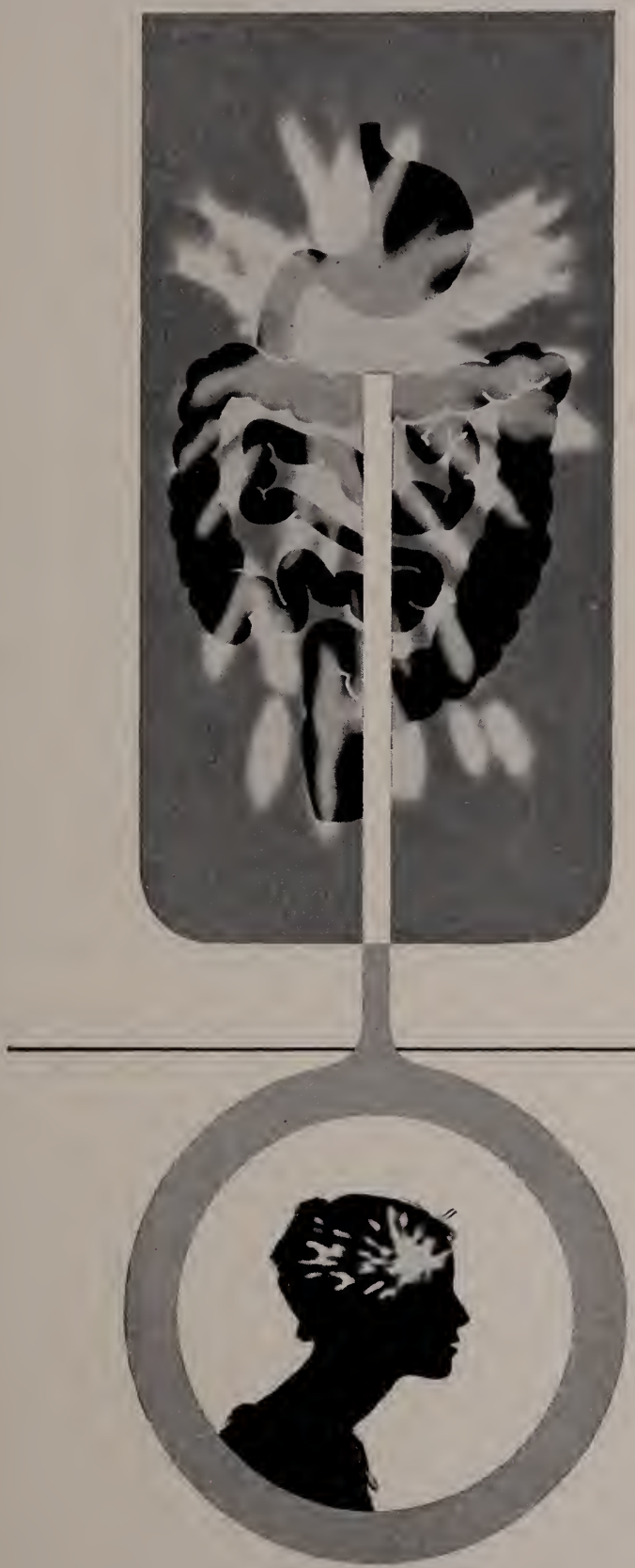
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References: **Carlozzi, M.**: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958. **Shalowitz, M.**: Clin. Rev. *1*:30 (April) 1958. **Welch, H.; Wright, W. W., and Staffa, A. W.**: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958.

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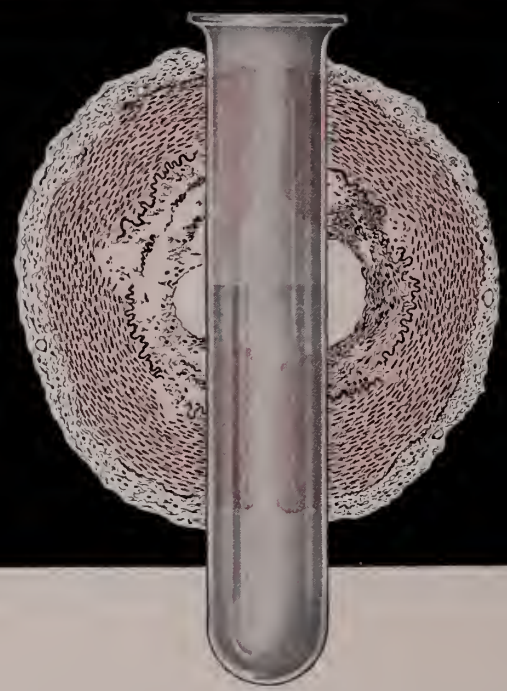
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Essential fatty acids†.....6.8 Gm.
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ANNUAL MEETING
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Portland

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Comittee on Traffic Safety To Study Physical Standards for Drivers

After some months of research and discussion of broad principles, the Oregon State Medical Society's Committee on Traffic Safety announced plans in April to conduct an extensive study which could lead to the legal establishment of physical standards for automobile drivers.

Chairman Arthur A. Fisher of Salem further reported that the Cornell Automotive Crash Injury Research Institute completed a six-month study in North Central Oregon and shifted the investigation on April 15 for the next six months to Yamhill, Lane, Tillamook and Clatsop counties. The survey has been approved by the State Society.

Recognizing that physical standards for automobile drivers should vary according to age and occupation, the Committee accepted an invitation from the Oregon State Board of Health to open its studies with consideration of the single problem of what constitutes adequate physical standards for school bus drivers.

At the present time a professional driver operating within the borders of the State is only required to secure a chauffeur's license which does not include a physical examination.

Age, experience and physical condition of school bus drivers apparently varies widely throughout the State. In some areas, college students are employed to transport youngsters to and from the school house. Other school boards employe independent contractors, who, in turn, hire professional drivers. In some smaller districts a local farmer, teacher or businessman might handle the driving chores.

Purpose of the study is to recommend preliminary physical standards for school bus drivers. These standards would be approved on a temporary basis for the 1958-59 school year. During the next 12 months the Committee may develop permanent physical standards for school bus drivers and possibly recommend a uniform physical examination form to be completed by the attending physician.

Later the Committee plans to consider physical standards for other occupational drivers and might also survey physical requirements for private motorists, Chairman Fisher reported.

A traveling team of physicians, Cornell Institute representatives, police and traffic safety personnel visited the new four-county auto crash injury study area the week before the start of the survey. Briefing sessions were held with physicians, hospital administrators, state patrolmen and coroners in McMinnville, Tillamook, Eugene and Astoria.

The study covers only those accidents with injuries which occur on state highways. Patrolmen are trained to complete a special report on each accident and physicians are requested to fill out a simple medical report on each accident victim. Reports are forwarded to the State Board of Health. Medical reports and the police report on each accident are than sent to the Cornell Research Institute.

Participants on the pre-study tour included E. N. McLean, Oregon City, a member of the Committee on Traffic Safety; Richard H. Wilcox, State Board of Health; Mr. Max deNovellis, Cornell University Medical College; Mr. Ed Warmoth, and Mr. Charles Boice, State Traffic Safety Commission and Lieutenant Byron Hazelton of the State Police.

Eastern Oregon District Medical Society Plans Annual Session for Ontario June 6-7

Joseph T. Burdic, Ontario, president of Eastern Oregon District Medical Society, is now developing the scientific program for the Society's 1958 Annual Session in Ontario on Friday and Saturday, June 6 and 7. Dr. Burdic states that the program theme will be "Trauma."

Six guest speakers in the fields of medicine, orthopedics, plastic surgery, chest surgery, neurosurgery and general surgery will present papers. Discussion time will be provided by means of round-table panels comprised of the guest speakers.

Business session of the Society will be conducted at lunch on June 6 which will also be the day of the annual banquet.

Eastern Oregon District Medical Society is composed of the physicians in Oregon's eight eastern-most counties: Umatilla, Morrow, Union, Wallowa, Baker, Malheur, Grant and Harney. It serves as the component for the physicians in Morrow, Wallowa, Grant and Harney counties.

Dr. Burdic asks that all members make plans to attend. Programs and reservation forms are being mailed early in May. He states, also, that a cordial invitation is extended to the physicians in Southwest Idaho and Southeast Washington.

Dr. Burdic adds that the meeting will close at noon on June 7, thus giving members an opportunity to take advantage of the excellent recreational opportunities in the Snake River country.

Postgraduate Course in Athletic Injuries Offered by University of Oregon June 20-21

The University of Oregon has announced that it will offer an intensive, two-day postgraduate course in athletic injuries on its campus in Eugene June 20-21. During the course, which is sponsored jointly by the University of Oregon, University of Oregon Medical School and Lane County Medical Society, recent developments and practices in treatment of athletic injuries will be discussed and demonstrated.

Faculty for the sessions includes the following men prominent in this field: Charles Bechtol, professor of orthopaedic surgery at the University of California School of Medicine and orthopaedic consultant for the U.C.L.A. football team; Daniel H. Levinthal, orthopaedic consultant for the Los Angeles Rams; Edmund J. McDonnell, orthopaedic consultant for the Baltimore Orioles and Baltimore Colts; Harold P. Miller, head physician for the United States Olympic team and team physician for the University of California; and Donald Starr, clinical instructor in orthopaedic surgery at the University of British Columbia Medical School and orthopaedic consultant for the Vancouver (B.C.) Lions professional football team.

Donald B. Slocum of Eugene, clinical instructor in orthopaedic surgery at the University of Oregon Medical School and orthopaedic consultant for the University of Oregon Athletic Department, is general chairman of the two-day school. Vice chairman is Howard A. Molter of Eugene, orthopaedic consultant for the University of Oregon Athletic Department.

Cost of the course, which has been approved for 15 hours of Category II credit by the American Academy of General Practice, has been set at $25. This figure includes both the registration and tuition fees.

The course has been scheduled for the week prior to the AMA convention in San Francisco to enable members to attend the Eugene session on their way to the California meeting.

Application forms may be obtained by writing to: Athletic Injuries, Room 102 Education Building, University of Oregon, Eugene, Oregon.

Program of the postgraduate course on athletic injuries follows:

PROGRAM

Friday, June 20

MORNING SESSION:

Moderator: William Snell, M.D., professor of orthopaedic surgery, University of Oregon Medical School, Portland

7:45 to 8:30 Registration

8:30 to 8:45 Welcome: Purpose and Scope

8:45 to 10:30 Injuries to the Head, Spine, and Pelvis
William D. Swancutt, M.D., Eugene
Donald Stainsby, M.D., chief of neurosurgery, Sacred Heart Hospital, Eugene
Edmund J. McDonnell, M.D., Baltimore, Md.
Connie Jarvis, athletic trainer, Stanford University

10:30 to 10:45 Intermission

10:45 to 11:30 Athletic Dermatology
L. W. Stauffer, M.D., team physician, North Eugene High School

11:30 to 12:00 Legal Aspects of Sports Injuries
Ronald W. Husk, attorney at law, Eugene

12:00 Luncheon

AFTERNOON SESSION:

Moderator: Howard Molter, M.D., Eugene

1:20 to 2:15 Athletic Protective Equipment
Willard M. Hammer, line coach, University of Oregon, Eugene
Don Kirsch, baseball coach, University of Oregon, Eugene

2:15 to 3:00 Mechanics of Football Injuries
Donald B. Slocum, M.D., Eugene

3:00 to 3:15 Intermission

3:15 to 5:15 Injuries to the Knee and Thigh
Harold Muller, M.D., Berkeley, Cal.
Donald Starr, M.D., Vancouver, B.C.
Charles Bechtol, M.D., Los Angeles, Cal.
Robert Peterson, athletic trainer, University of California, Berkeley, Cal.

6:30 to 7:15 Hospitality Hour

7:15 Lane County Medical Society No-Host Dinner Meeting, Eugene Hotel
Guest Speaker: Harold P. Muller, M.D., Medical Experiences as Olympic Team Physician (All attending the postgraduate session and wives invited.)

Saturday, June 21

MORNING SESSION:

Moderator: Donald B. Slocum, M.D., Eugene

8:00 to 9:00 Physical Basis for Restriction from Athletics
Ray Hendrickson, principal, North Eugene High School; former president, Oregon High School Coaches Association
John Bonzer, M.D., Eugene
Howard A. Molter, M.D., Eugene

9:00 to 9:40 Principles of Field Examination and Treatment
George Guldager, M.D., team physician, University of Oregon, Eugene
Bob Officer, athletic trainer, University of Oregon; regional chairman, National Athletic Trainer's Association

9:40 to 10:00 Intermission

10:00 to 12:00 Injuries to the Shoulder and Upper Extremity
Charles Bechtol, M.D., Los Angeles, Cal.
Daniel H. Levinthal, M.D., Beverly Hills, Cal.
Donald Starr, M.D., Vancouver, B.C.
Connie Jarvis, Stanford, Cal.

12:00 to 1:15 Luncheon

AFTERNOON SESSION:

Moderator: Harold Muller, M.D., Berkeley, Cal.

1:15 to 3:15 Injuries to the Leg and Ankle
Edmund J. McDonnell, M.D., Baltimore, Md.
William Snell, M.D., professor of orthopaedic surgery, University of Oregon Medical School, Portland
Daniel H. Levinthal, M.D., Beverly Hills, Cal.
Edwin Lane, athletic trainer, Washington State College, Pullman, Wash.

3:15 to 3:30 Intermission

3:30 to 5:30 Principles of Athletic Taping
Howard A. Molter, M.D., Eugene
Donald B. Slocum, M.D., Eugene
Connie Jarvis, Stanford, Cal.
Bob Officer, Eugene
Edwin Lane, Pullman, Wash.
Robert Peterson, Berkeley, Cal.

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*Rest, Edward J., and Todd, Wilbert R., Textbook of Biochemistry, 2nd Ed. (New York, Macmillan, 1955), p. 522; p. 1074-5.



Oregon Trudeau Society To Be Chartered May 13 in Portland

After a period of preliminary organizational work, the Oregon Trudeau Society will become a reality with the formal chartering of the Society during its first scientific meeting at the Imperial Hotel in Portland, May 13. The meeting will coincide with the annual meeting of the Oregon Tuberculosis and Health Association.

Col. James H. Weir, M.C., Chief of the Pulmonary Disease Section, Fitzsimons Army Hospital, Denver, an authority on pulmonary diseases, will be featured speaker on an outstanding agenda that will include: an x-ray conference with panel discussion on interesting cases; short papers on timely subjects pertaining to chest diseases, including heart; and formal charter organization of the new society.

Lawrence M. Lowell, chairman of the Committee on Oregon Trudeau Society, with other members of the committee—William Cloyd and James T. Speros—point out that all Oregon physicians and surgeons interested in tuberculosis and other pulmonary diseases are urged to attend the session and join the Society. Reservations may be made by contacting Mr. Don Harman, case-finding director of Oregon Tuberculosis and Health Association, 605 Woodlark Building, Portland 5, CA. 7-5414.

For many years, the Oregon Tuberculosis and Health Association has had a medical advisory committee, composed of some 25 physicians and surgeons interested in tuberculosis and other chest diseases. Function of the committee has been to study and make recommendations regarding opportunities for local medical research, expansion of medical education programs, and procedures relating to case-finding. The group has enjoyed a professional association which has been mutually stimulating and which has tended to raise the standards of practice in the field of pulmonary diseases.

Members of the committee have long felt that there are other physicians and surgeons who would enjoy the association of this group. As members of a Trudeau Society, they would give strong leadership to an organization which has as its chief goal the eradication of tuberculosis and the maintenance of high standards of public health in the community, with particular emphasis on chest diseases.

The proposed Oregon Trudeau Society has approval of Oregon State Medical Society and the American Trudeau Society, medical section of the National Tuberculosis Association.

Southern Oregon Medical Society To Meet May 24 in Grants Pass

D. G. Mackie, Grants Pass, president of Southern Oregon Medical Society, has announced that two members of the faculty of the Stanford University School of Medicine will be guest lecturers at the Society's 67th Annual Meeting to be held at the Zottola's Country Club in Grants Pass on Saturday, May 24, 1958.

The guest speakers are Milton L. Rosenberg, San Francisco, assistant clinical professor of surgery (urology) and John V. Young, clinical instructor in medicine. Each guest speaker will present two lectures and participate in two round-table discussions in which they will be joined by members of the Society.

Dr. Mackie states that the entire program will be devoted to medical and surgical aspects of kidney diseases. It is being billed as a "Postgraduate Symposium on Renal Diseases" and has been approved by the American Academy of General Practice for six Category I credit hours for members of the Academy.

Registration is at 8:30 A.M. with the morning scientific session beginning at 9:00 A.M. The Society's annual business session will be conducted during lunch at 12:30 P.M., followed by the afternoon session at 2:00. The meeting is scheduled to close at 5:00 P.M.

Southern Oregon Medical Society was founded in 1892 as the component society for the physicians of Douglas, Josephine, Jackson, Klamath and Curry Counties. During subsequent years the physicians of each county but Curry have established their own local component societies. Physicians in Curry County are now members of the Southwestern Oregon Medical Society which also includes Coos County and physicians practicing in the coastal cities of Douglas and Lane Counties.

Even after establishing separate component societies, physicians of this area have continued to maintain the Southern Oregon Medical Society for the professional advancement of its members. The annual meetings, which are well attended, offer outstanding scientific programs and are rotated among the principal cities.

Thomas H. Emmens of Medford is vice-president and Edward C. Wall of Grants Pass is secretary-treasurer. The Board of Censors is composed of John P. Russell, Grants Pass, Chairman; Calvin L. Hunt, Klamath Falls; and Jack S. Ingram, Medford.

The program:

Morning Session

8:30 A.M. Registration (Fee—$10.00)

Symposium on

Acute and Chronic Renal Insufficiency

9:00 A.M. Medical Aspects ..... John V. Young

10:00 A.M. Surgical Aspects ... Milton L. Rosenberg

11:00 A.M. Round-Table Discussion

D. G. Mackie, Chairman

Panel Members

Milton L. Rosenberg — John V. Young

John R. Boe, Grants Pass — John T. Weisel, Medford

Oscar T. Heyerman, Medford

Afternoon Session

2:00 P.M. Urolithiasis ..... Milton L. Rosenberg

3:00 P.M. Renal Transplantation ..... John V. Young

4:00 P.M. Round-Table Discussion

D. G. Mackie, Chairman

Panel Members

Milton L. Rosenberg — John V. Young

R. R. Johnson, Grants Pass — F. J. Shaskey, Medford

W. S. Judy, Jr., Grants Pass — E. F. Tonn, Murphy

W. C. Foster Named to Medical Board

Wilmot C. Foster of Portland has been appointed by Gov. Robert D. Holmes to a third term on the State Board of Medical Examiners. His new term runs until Feb. 28, 1963. Dr. Foster is a member of the executive committee of the Federation of State Medical Boards of the United States.

1958 OFFICERS

Oregon State Medical Society

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Obituaries

Dr. Paul R. Schiewe, 37, of Astoria died February 27. At the time of his death, he held the office of president of Clatsop County Medical Society. Dr. Schiewe was born and reared in Portland and entered practice in Astoria four years ago. He was graduated from Jefferson High School in Portland, and Linfield College before entering the University of Oregon Medical School from which he was graduated in 1945. In addition to his interest in Society affairs, Dr. Schiewe was active in a number of community enterprises. For several years he was a participating member in the Astoria Junior Chamber of Commerce.

Dr. Delbert C. Stanard, 67, long-time Eugene physician, died March 27 in a local hospital. Dr. Stanard obtained his medical degree from the University of Oregon Medical School in 1921 and took postgraduate work in Philadelphia, Pa., and at Tulane University in New Orleans, La., specializing in EENT. Included among his varied community activities was work with the Boy Scouts for which he was honored with the Order of the Silver Beaver, highest award a local Boy Scout council can give. Also, he headed Civil Defense for his local area in 1951. Dr. Stanard served during World War II as a lieutenant-colonel from 1942-1944 while he was division surgeon of the 41st Division, and as a colonel in 1945 as medical training inspector for the Ninth Service Command. He was a past-president of Lane County Medical Society and past-president of Central Willamette Medical Society.

Jackson County Medical Society

Byron Hall, associate clinical professor and director of cancer chemotherapy of the Stanford University Medical School, was guest speaker at the March 12 meeting of the Jackson County Medical Society. The session was held at the Rogue Valley Country Club in Medford. From 1:30 to 5:30 in the afternoon of the same day, medical films were shown at the Country Club to physicians and registered nurses during a clinical teaching conference on Cancer and Its Treatment.

Oregon Academy of Science Honors Physician

Samuel Diack of Portland, chairman of the board of directors of the Oregon Museum of Science and Industry, was honored by the Oregon Academy of Science at its 16th Annual Meeting February 22. Dr. Diack was recognized for his work in behalf of the new OMSI building now being completed in the West Hills.

Doctors, Lawyers Hold Joint Meeting

At a joint session April 1 in Eugene, more than 200 Lane County physicians and lawyers met to discuss mutual problems and relationships. Following dinner, Circuit Judge William Fort moderated a panel question and answer forum. Panel members were: George C. McCallum and Donald E. Moore, Eugene physicians, and Attorneys Hale Thompson and Windsor Calkins.

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Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

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Belladanna Extract ..... 1/8 gr.*
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*Equivalent 5 minims Tinct. Belladonna, USP.

Average adult dosage:
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Washington

WASHINGTON STATE MEDICAL ASSOCIATION
1309 Seventh Avenue
Seattle 1, Washington

ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane Secretary, F. A. Tucker, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle



YAKIMA MEETING: Fig. 1. Milo T. Harris, Spokane, President, Washingtgon State Medical Association. Fig. 2. Fred M. Petrie, Toppenish, Honorary Member; Fred L. Burrows, Yakima, President, Yakima County Society; and Howard L. Hull, Yakima, Honorary Member. Fig. 3. G. P. Shepard, Yakima, Honorary Member; Albert J. Goss, Ellensburg, President of Kittitas County Medical Society. PASCO MEETING: Fig. 4. Charles G. Sutch, Richland, Secretary, Benton-Franklin County Society; Jack D. Freund, Kennewick, President, Benton-Franklin County Society; and Dr. Harris.

WSMA President Harris Urges Greater Participation in Civic Affairs

WSMA President, Milo T. Harris of Spokane, believes the oft-stated maxim, that "public relations for the medical profession starts and ends in the doctors' offices," is more important today than ever before.

He drove this message home before Yakima, Kittitas and Benton-Franklin County Medical Society members as the honored guest speaker, in speeches at Yakima and Pasco.

The State Association President also urged the physicians to take more and more active interest in civic affairs, and to recognize their obligations to the press in providing scientific information that warrants public exposure.

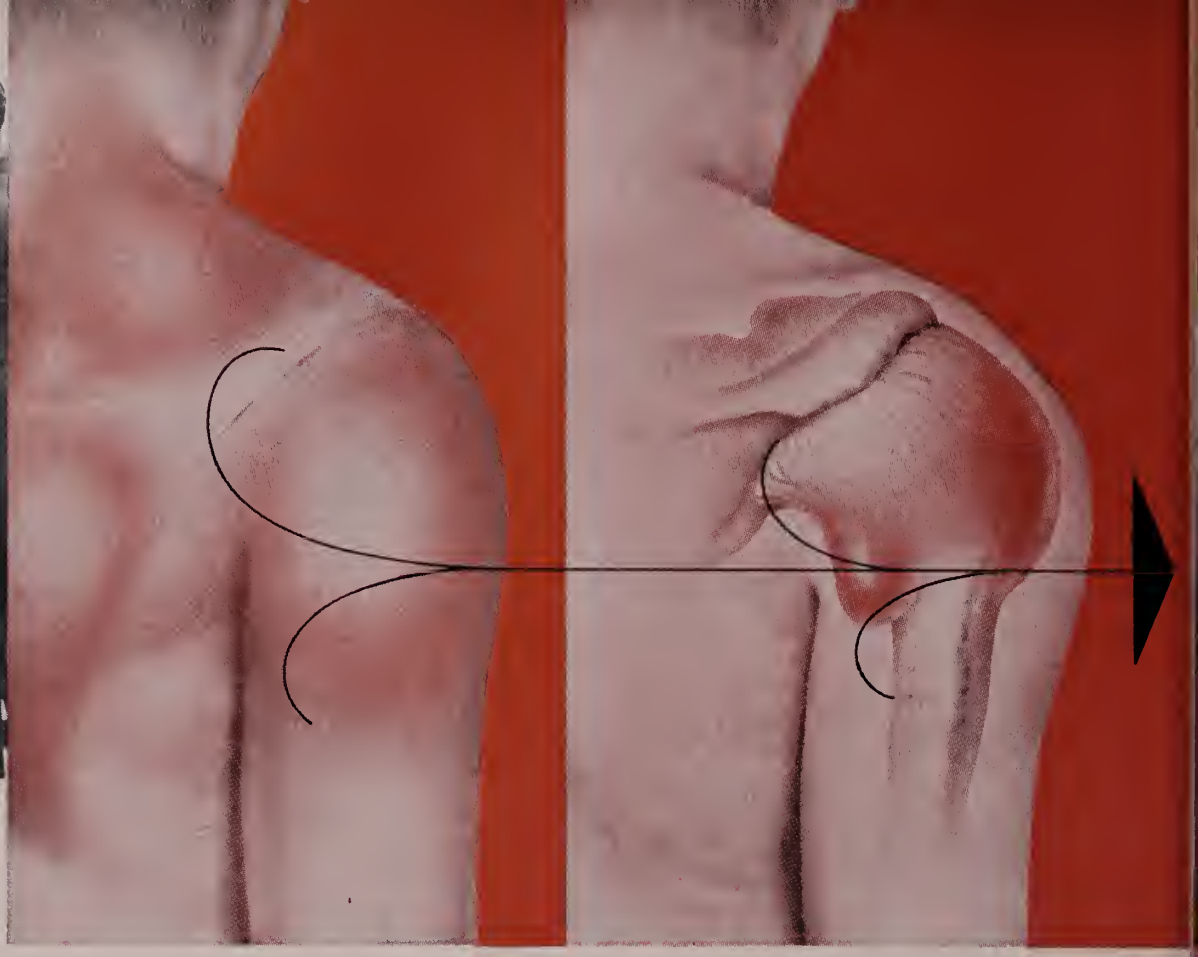
He complimented the Yakima County Society for its early adoption of the "Guide for Cooperation" worked out between the various communication systems and the State Medical Association for a mutual understanding in the dissemination of medical news.

The 1958 Annual Convention of the Washington State Medical Association, he pointed out, is being held in Spokane on September 14-17, inclusive. Physicians of the East side were not only urged to attend the meeting, but to offer their services in the scientific program and exhibit phases of the Convention.

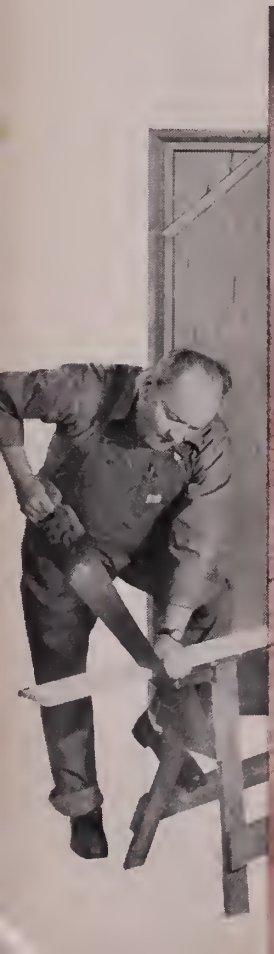
Dr. Harris said refresher courses would be offered for all medical practitioners. He also remarked that prominent guest speakers from all parts of the country would present scientific lectures of interest to specialty groups.

The Yakima Society paid homage to honorary members of the Society for their 30 years (or more) membership in the Society and for having served the public over such a long period of time.





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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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Dr. Luman S. Roach, 80, long-time Kalama physician, died December 14 of pneumonia, carcinoma of the prostate and arteriosclerotic heart disease. Following his graduation from the University of Oregon Medical School in 1912, Dr. Roach practiced in Seattle and then located in Kalama in 1919. He served for 12 years as a member of the Kalama School Board and also was Cowlitz County Health Officer for a number of years.

Dr. Francis J. Burns, 65, Spokane county coroner, died February 4 in a local hospital. Death was caused by generalized carcinomatosis due to adenocarcinoma of the left lung. Dr. Burns received his medical degree in 1921 from the Stritch School of Medicine of Loyola University in Chicago. During his 37-year medical career in Spokane, he served as director of the Medical Service Bureau of Spokane, medical examiner for the boy scouts and surgeon for the Spokane Fire Department. Dr. Burns had been county coroner since 1950. He was a veteran of both World Wars.

Dr. Wasily V. Muller, 61, died February 27 at his home in Seattle of a coronary thrombosis. Dr. Muller received his medical degree in 1930 from the University of Oregon Medical School. He was a physician for a mill in Skykomish and then practiced in North Bend before locating in Seattle in 1939.

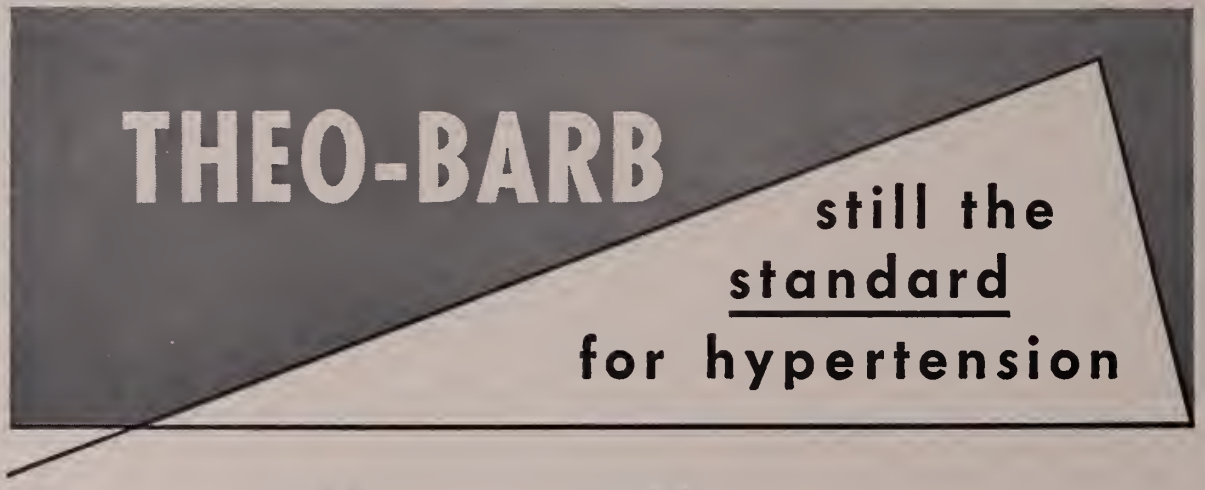
Dr. LaZelle B. Sturdevant, 78, retired United States Public Health physician, died February 28 in a Seattle hospital of pulmonary edema due to confluent bronchopneumonia and terminal Parkinson's disease. Dr. Sturdevant was graduated in 1909 from the University of Nebraska College of Medicine. He practiced in Lincoln, Neb., for several years and then served in the Army Medical Corps during World War I. He moved to Seattle in 1929. Dr. Sturdevant had served with the U.S.P.H.S. for 25 years before his retirement in 1946.

Dr. Edwin L. Carlsen, 78, pioneer South Tacoma physician, died March 1 in a Tacoma hospital of hypernephrosis of the right kidney and arteriosclerosis. Dr. Carlsen was graduated from the University of Minnesota Medical School in 1906 and moved the same year to Tacoma where he interned in the Northern Pacific Beneficial Association Hospital.

Dr. Claud H. Weir, 80, of Seattle, retired EENT specialist, died March 8 of carcinoma of the prostate with multiple metastases. Dr. Weir received his medical training at Columbia University College of Physicians and Surgeons from which he was graduated in 1904. He served as a medical officer in the First World War.

Dr. Frank B. Wyman, 34, of Bellevue, died March 9 in a Seattle hospital three days after suffering a coronary artery occlusion. Dr. Wyman was graduated from Northwestern University Medical School in 1950. Before locating in Seattle, Dr. Wyman had practiced for a short time in Port Angeles.

Dr. Frank M. Carroll, 88, pioneer Seattle obstetrician



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and gynecologist, died March 10 of chronic myocarditis due to chronic emphysema and chronic bronchiectasis. Dr. Carroll had practiced in Seattle since his graduation in 1896 from Cooper Medical College, San Francisco, until his retirement in 1951. Dr. Carroll was Seattle Health Officer between 1899 and 1901, King County Coroner from 1904 to 1908 and Seattle Health Commissioner from 1934 to 1943. During World War I, he served as a lieutenant colonel in the Army Medical Corps.

Dr. Francis H. Brown, 82, Seattle physician and surgeon for 47 years, died March 23 of a cerebral thrombosis due to cerebral arteriosclerosis. Dr. Brown received his medical education at the University of Southern California School of Medicine at Berkeley from which he received his degree in 1904. He located in Seattle in 1908, retiring from active practice three years ago. Dr. Brown was a past president of the Seattle Academy of Surgery.

Dr. Carl J. Johannesson, retired Walla Walla physician, surgeon and radiologist, died March 28 in Milwaukie, Oregon, where he had resided for the past two years. Dr. Johannesson, who came to the United States from Copenhagen, Denmark, in 1913, earned his medical degree at the Stritch School of Medicine of Loyola University, Chicago, in 1917. He had practiced in Walla Walla 35 years prior to moving to Oregon on January 1, 1956. He was past-president of Walla Walla County Medical Society and was a charter member of the Society of Nuclear Medicine.

Southwest Washington Academy of GP Holds Annual Meeting in Vancouver

John O. Milligan of Seattle, president of the Washington State Chapter of the American Academy of General Practice, was guest speaker at the Annual Meeting of the Southwest Washington Chapter of the Academy. The session was held at the Royal Oaks Country Club in Vancouver March 19.

Following dinner and social hour, members heard Dr. Milligan present a paper on Meckel's Diverticulum. Following his formal discussion, Dr. Milligan spoke on matters pertaining to the AAGP on a state and national level.

Election of officers was held during the business meeting that followed. New officers are: Donald Nelson, Vancouver, president; J. L. Axling, Longview, vice-president; G. W. Turley, Ridgefield, secretary-treasurer; W. S. Shepherd, Camas, director (two year term); H. L. Eldridge, Washougal, delegate; L. A. Hamilton, Longview, delegate; and James Park, Vancouver, and Donald Clark, Longview, alternate delegates. Robert B. Sullivan of Vancouver is completing his final year of a two year term as director.

The group also elected to extend an invitation to the Board of Directors of the Washington Chapter of AAGP to hold its 1959 Annual Meeting in Vancouver.

U.W. Surgeon Elected to Board

K. Alvin Merendino, professor of surgery at the University of Washington School of Medicine, has been elected to a six-year term as a member of the American Board of Surgery. Dr. Merendino represents the Pacific Coast Surgical Society on the 18-member board.

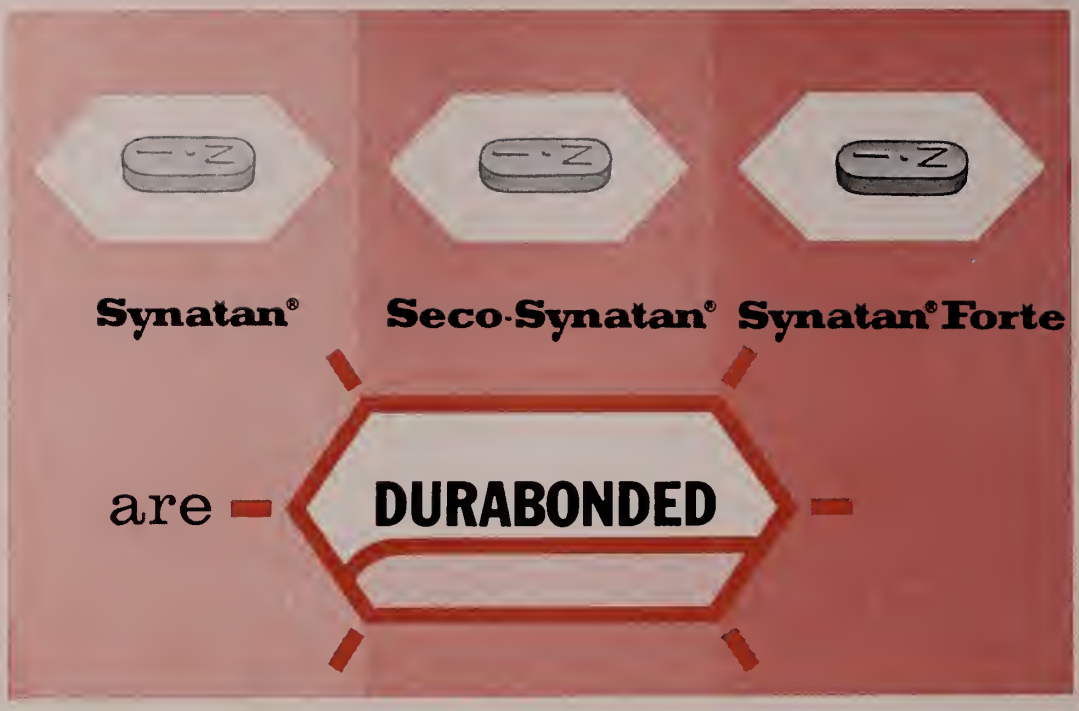


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Tanphetamin (*d*-amphetamine tannate) 17.5 mg.
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Dosage: 1 or 2 tabules at 10 a.m. for all-day control. For prescription economy, available in bottles of 50.

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Past-President of State Association Wilmot D. Read of Tacoma Succumbs

Dr. Wilmot D. Read of Tacoma, whose distinguished medical career spanned more than a half-century, died in a Tacoma hospital April 3 at the age of 78. He had been in failing health for a number of months.



WILMOT D. READ, M.D.

Devoting himself unstintingly to the service of his profession and the public over the years, Dr. Read was a leader in the affairs of organized medicine for decades, and a pioneer in the field of prepaid medical care.

In 1949, he was chosen by the Washington State Medical Association as the outstanding general practitioner of the year in the state. He became an honorary (life) member of the Association the same year, and was initiated into the exculsive 50-Year Club in 1954.

Dr. Read was first a delegate to the State Medical Association in 1909, and was president of the Pierce County Medical Society in 1912. During the First World War, he served as a captain in the Medical Corps, and went overseas with Base Hospital No. 93.

When the State Medical Association created the office of president-elect in 1921, Dr. Read was first to fill that position. In 1922, during his presidency, he organized the Public Health League for dissemination of information to the public. He was elected first speaker of the State Medical Association's House of Delegates in 1939, and served in that capacity until 1947. He also served as a trustee for several years, and worked on many scientific committees.

Dr. Read was the first president of the Pierce County Medical Service Bureau, which was organized in 1917 as the earliest doctor-sponsored prepaid medical plan in the United States. He also helped to found the Washington State Medical Bureau, predecessor of Washington Physician's Service, and was president of this organization from 1939 to 1941.

Dr. Read was a member of many professional, fraternal and civic organizations, including the American College of Surgeons, Elks Lodge, the Shrine, American Legion, Tacoma Golf and Country Club and Seniors Northwest Golf Association.

Born in Iowa in 1879, Dr. Read moved to Tacoma with his parents in 1889. He attended grammar and high school there. His father, Abel Read, was a Tacoma police captain for many years.

After graduation from Cooper Medical College (Stanford University) in 1903, Dr. Read returned to Tacoma and entered private practice. He served as assistant superintendent of Western Washington State Hospital in 1904.

Dr. Read was married in 1904 to the former Kathryn Calhoun, who survives him. He also is survived by two sons and four grandchildren. One son, Jess, is a surgeon, and the other, Robert, is a dentist. Both practice in Tacoma. Dr. Jess Read, now a delegate to the American Medical Association, was Speaker of the State Medical Association's House of Delegates in 1954, and is the only physician yet to succeed his father in that position.

Private funeral services were held in Tacoma April 5. Instead of floral tributes, the family asked that remembrances be sent to the Dr. Wilmot D. Read Memorial Fund which has been established to develop a recovery department for postoperative patients at Tacoma General Hospital.

12 Scientific Exhibits Planned for WSMA Annual Meeting

Twelve high-quality scientific exhibits will be displayed at the 1958 convention of the Washington State Medical Association in Spokane September 14-17, according to an announcement by L. S. Highsmith, chairman of the Scientific Exhibits Committee.

The scientific exhibits will be part of a comprehensive postgraduate education meeting which will feature six top-flight guest speakers in a two-day scientific program and one day of medical films. Names of five of the guest speakers have previously been announced. The sixth to be selected is Eugene F. Poutasse of the Cleveland Clinic, whose main subject will be: Renal Artery Disease in Hypertension.

Titles and sponsors of the scientific exhibits announced to date are:

Advances in Vascular Surgery—R. N. Kleaveland, Spokane.

Extra Corporeal Circulation Techniques—Ralph Berg and Henry T. Lang, Spokane.

Virus Disease Research—Ernest Stone, D.V.M., Pullman, dean, School of Veterinary Medicine, Washington State College.

Pitfalls in Office Radiology—Patrick A. Lynch, John E. Downing and Edward J. James, Yakima.

Emergency Care of Eye Injuries—Robert J. Davis, Spokane.

Current Use of the Tuberculin Skin Test in Medical Practice—Cedric Northrop, Seattle.

Bleeding in the Third Trimester—Ralph T. Harsh and David Groenig, Spokane.

Final arrangements have not yet been completed on the other exhibits to be displayed. Further details will be announced soon.

1958 Fishing Derby To Be Held at Priest Lake in North Idaho

Scenic Priest Lake in Northern Idaho will be the site of the doctors' fishing derby to be held September 15 as an event of the 1958 convention of the Washington State Medical Association, according to O. Charles Olson of Spokane, fishing derby chairman.

The fishing derby will be headquartered at Linger Longer Lodge at Priest Lake. Round-trip bus transportation will be provided from the Davenport Hotel in Spokane, where the convention will be held September 14-17.

Boats and out-of-state licenses will be provided to participants in the derby, and breakfast, luncheon and an evening banquet will be served. All of this, as well as the cost of transportation, will be included in the price of the ticket, which will be announced in the near future when application blanks are sent out.



MEDICAL BUREAU INCORPORATORS—Shown above are four of the six physicians who acted as incorporators of the King County Medical Service Corporation and signed the original articles of incorporation on April 6, 1933. Looking over the original minute books are: standing, Albert J. Bowles, Vern Spickard and Thomas Morcom; seated, Raymond L. Zech. The other two incorporators are Arthur Crookall, now retired and living in California, and H. Garner Wright, who resigned from the Corporation. Dr. Bowles and Dr. Spickard still are practicing in Seattle and are active members of the Bureau.

King County Medical Service Corporation Observes 25th Anniversary in 1958

King County Medical Service Corporation of Seattle, recognized throughout the nation as one of the first and most successful service-type prepaid health care plans, this year is observing its 25th anniversary.

King County Medical was formed in 1933 by the membership of the King County Medical Society to accomplish two purposes: (1) make available medical, surgical and hospital care to thousands of persons in King County who could not afford it, and (2) make available to these people free choice of all doctors participating in the plan. It was incorporated as a non-profit organization by six physicians representing the Society (see photo above) and has been operated by a board of physicians since that time.

At the present time 225,000 persons are covered by King County Medical, better than one out of every four persons residing in the county. In the 25 years since it was organized, the Corporation has paid 74 million dollars to physicians and hospitals for services to subscribers and their families. Last year the 1,002 physicians participating in the plan received a total of $5,246,000 for services.

"The success that King County Medical has achieved in these 25 years is a tribute to all of the doctors of the county—both those who originally organized it and those who have supported it throughout the years," Roland D. Pinkham, president of the Corporation, said. "We think that it has been demonstrated in these 25 years that a doctor-operated prepaid health care plan can provide the best coverage for the subscriber and can best represent the interests of the doctors."

The board of trustees of the Corporation, in addition to Dr. Pinkham, is composed of the following Seattle physicians: Eugene F. McElmeel, vice-president; John R. Wilton, secretary, and Albert F. Lee, Robert C. Manchester, Gordon A. Dodds and Frank C. Henry, trustees.

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metaphosphate produced markedly higher blood levels than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium metaphosphate, found much higher

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

last mentioned paper of t al.[7] indicates that in their study the capsules tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the presence of calcium as fillers in some of the capsules and not in others.

were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies both in rats[8] and in man[9] and include additional findings that serve to explain, fairly conclusively, the various discrepancies that have been mentioned.

The experiments in rats[8] were carried out to study the effects of citric acid, dicalcium phosphate, sodium metaphosphate, food, oil and sorbitol on the serum antibacterial activity produced by the administration of tetracycline hydrochloride or tetracycline base. Citric acid administered in equal weight with tetracycline hydrochloride gave the highest concentrations of all the preparations studied. No enhancing effect was obtained from citric acid when given with tetracycline base. Dicalcium phosphate and food resulted in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetracycline is related to its ability to form complexes

This, however, fails to explain the most recent findings of Welch and Wright,[10] who compared the absorption of three capsules, each containing 250 mg. of oxytetracycline hydrochloride — one without any adjuvant, one with 250 mg. of citric acid and the third with 380 mg. of sodium hexametaphosphate; no other filler was contained in any of these capsules. In triple

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Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958

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Locations

James A. Thompson, specialist in internal medicine, has recently joined the staff of the Memorial Clinic in Olympia. Dr. Thompson received his medical degree in 1953 from Washington University School of Medicine, St. Louis, and served his internship at King County Hospital, Seattle. He also took postgraduate training at Georgetown University Hospital, Washington, D.C., and the Lahey Clinic, Boston, Mass.

Charles C. Martin has entered into association with Raymond A. Kardong and Donald W. McIlleece in Bellevue. Dr. Martin received his medical training at Northwestern University Medical School from which he was graduated in 1951. He interned in the University of Illinois Research and Educational Hospitals in Chicago and then took further training in the Veterans Administration Hospitals in Chicago and Seattle.

David G. Wallin has opened offices in Lynnwood for the practice of internal medicine. Dr. Wallin was graduated in 1953 from Boston University School of Medicine and served his internship in Mercy Hospital, Baltimore, Md. He took his specialty training at Massachusetts Memorial Hospital, Boston City Hospital and Veterans Administration Hospital in Seattle.

W. Scott Overturf has entered into association with Lewis D. Fink for the practice of medicine and surgery in Redmond. Dr. Overturf received his medical education at McGill University Faculty of Medicine, Montreal, Canada. Following his graduation from medical school in 1955, he interned at Swedish Hospital, Seattle, and then served a one-year residency in surgery at St. Luke's Hospital in Spokane.

Basil Gregores, pediatrician, has joined in asociation with Robert Evoy and Ed Galta in Renton. Dr. Gregores was graduated from the University of Washington School of Medicine in 1953 and took his internship in New York. He served a two-year residency at Children's Hospital in Detroit. Dr. Gregores had practiced in Burien during the past year.

Harold T. Pederson Named Director of Medical Service Bureau of Spokane

Harold T. Pederson, Spokane internist, assumed his new duties as medical director of the Medical Service Bureau of Spokane on May 1. He succeeds Francis J. Burns who died February 4.

Dr. Pederson had served as president of the Medical Service Corporation, controlling board of the bureau, for the last two years.

The bureau was organized in 1933, two years after Dr. Pederson opened his first offices in Spokane, and now has 132,426 subscribers, who received medical services from member physicians totaling $3,299,147 during 1957.

Essay Contest Winner Named

An Edmonds High School junior, James Hammer, 16, has won first place prize of $50 in the essay contest sponsored by the American Medical Association and Snohomish County Medical Society. The youth's essay on The Advantages of Private Medical Care has been entered in the national contest.

Northwest Internists Hear Karl Meyer at Annual Meeting of Tacoma Academy

About 350 physicians from the Northwest and British Columbia gathered in Tacoma March 7 for the eighth annual meeting of the Tacoma Academy of Internal Medicine. Banquet speaker was Karl F. Meyer, director of the George William Hooper Foundation in the University of California Medical Center. Dr. Meyer spoke on medical research in the Soviet Union where he spent 32 days in 1956.

The subject of virus diseases was chosen by the Academy to be discussed at the meeting because of the tremendous increase in knowledge about them and a perfecting of methods of isolating and developing immunization against viruses.

In addition to Dr. Meyer, two other authorities in the field of viral diseases presented papers during the one-day session. They were Gordon Meiklejohn, head of the department of medicine at the University of Colorado School of Medicine, and William Kirby, professor of medicine at the University of Washington School of Medicine. Dr. Meiklejohn discussed recent advances in the diagnosis and management of infectious diseases, and Dr. Kirby spoke on problems in the use of antibiotics.

During the morning session, the following members of the Tacoma Academy presented case histories for the discussion program: Robert E. Lane, Charles Arnold, Bernard Rowen, Rodger Dille, Calvin R. Lantz, John L. Whitaker, Theodore J. H. Smith and H. A. Anderson.

Physician-Artists Invited To Exhibit at AMA Convention in San Francisco

All physicians interested in art are invited to become members of the American Physicians' Art Association and to exhibit their work at the AMA meeting in San Francisco June 23-27. Exhibit classifications will include traditional and modern art, sculpture, crafts, and photography (salon or color slides).

Only requirement of membership in the Art Association is that a physician be a member in good standing of his local medical society.

Those interested in joining the Association and exhibiting at the AMA convention are asked to contact: Edmund H. Smith, M.D., 3434 Cascadia Ave., Seattle, Wash.

Clark County Has Mass Anti-TB Survey

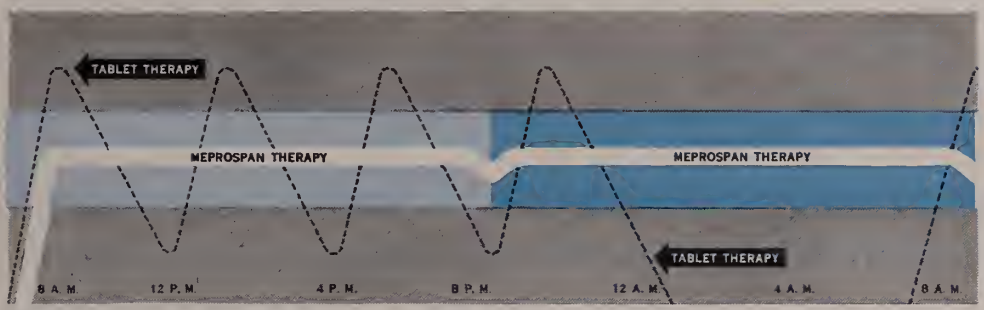
For the first time in three years, a mass anti-tuberculosis survey has been conducted in Clark County. The two-month chest x-ray campaign was begun March 3 and runs through May 3. Goal of the survey has been to obtain an x-ray of every Clark County resident who is 15 years or older.

Sponsored jointly by Clark County Health Department, Clark County Tuberculosis Association, Washington State Health Department and the Washington Tuberculosis Association with the cooperation of Clark County Medical Society, the survey is expected to cost $17,040.

During the 1955 campaign, 25 persons identified through the free chest x-rays were hospitalized with active tuberculosis. A total of 24 new active cases were reported from Clark County during the past year.

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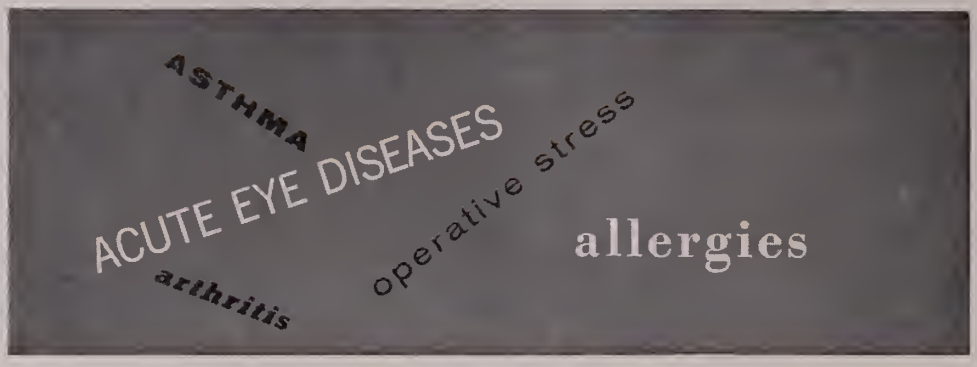
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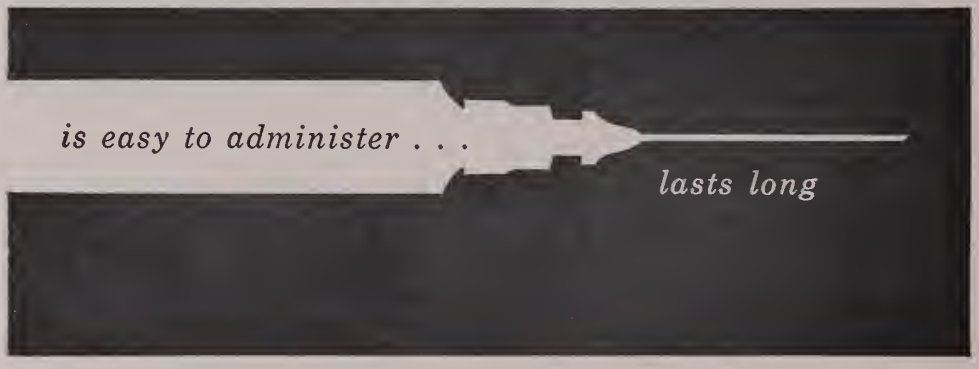
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Idaho State Medical Association

July 6-9 1958
at Sun Valley



President Hoyt B.

to the 66th of the Idaho



HOYT B. WOOLLEY, M.D., Idaho Falls

Hoyt B. Woolley, Idaho Falls, President of the Idaho State Medical Association, cordially invites the physicians in the Northwest and their wives to attend and to participate in the most outstanding meeting in the West—the 66th Annual Meeting of the Idaho State Medical Association at beautiful Sun Valley, July 6, 7, 8, 9, 1958.

The Program Committee for the meeting, under the capable leadership of Fred E. Wallber of Idaho Falls, has arranged another excellent scientific program for you. Five nationally-prominent physician-surgeon instructors have accepted invitations to present the lectures for this year's meeting. Topics have been selected with care to provide you the very latest information in the fields of orthopedic surgery, internal medicine, obstetrics and gynecology, surgery and urology.

The famous "Idaho Formula"—part scientific, part pleasure—will prevail again for the 66th Annual Session. Scientific sessions will begin on the dot of 9 a.m. each day, Monday through Wednesday, and will conclude by 1 p.m. The afternoons are deliberately left free of meetings and conferences so that each person attending can relax and enjoy recreational facilities that are so abundant at Sun Valley!

Sun Valley is extremely pleasant in July. The days are warm and lazy—the evenings cool and clear. Entertainment will be furnished in large quantities by Hap Miller and his orchestra in the famous Duchin Room of the Lodge. Larry LaPrise and the versatile Sun Valley Trio will play for your dancing and amusement in the Ram Room.

Woolley invites you

Annual Session
State Medical Association

..... July 6-9, 1958 at *SUN VALLEY*

The annual Golf Tournament will be played on the Sun Valley Course—one of the sportiest, most challenging courses in the West. This event should provide you considerable pleasure—even if you tend to take your golf seriously. Duffers and low-handicap players are especially invited to participate in this event. If serious competition is to your liking, you must enter the Association's Annual Trap Shoot. Rudy Eitchen looks forward to setting up the event. This is the one affair that attracts more physicians each year. Better bring along your shotgun.

For the young-at-heart who still play tennis, faur courts will be ready for you. In event you feel the desire to do some stream fishing, we suggest you bring alang your tackle. If you forget this item in packing, you can rent anything yau need. Potential cowboys or cowgirls can all be like the Western TV shows and gallop aver hill and dale on horses from the Sun Valley Stables. Guides are available so that you will not get lost. (No six-guns allowed!) If you want to just sit in the sun and look around, you'll find plenty of comfortable lounges and chairs.

A highly enjoyable social event has been planned each evening for your amusement. Something new has been added this year—A Welcome to the ISMA Annual Meeting get-acquainted-open house will be held at the Harriman Cottage on Sunday evening. On Monday evening the famous Barbecue will be held at Trail Creek. Buses will be provided to get you there. Bring along a warm jacket for this outstanding party. Other events have been planned with but one thought in mind—to provide good food, good entertainment, and a good time for all.

Naturally, it's sport clothes for nearly every function. Bermuda shorts, gay sport shirts and slacks are a must. The exception to this, of course, is the annual President's Banquet which will be held on Wednesday evening in the Lodge. Summer formals for the ladies, dinner jackets or dark suits for the doctors.



For sparkling scientific sessions, outstanding recreation, good fellowship, entertainment and relaxation in beautiful surroundings, we extend to each Northwest physician and his wife a most cordial and warm invitation to attend the 66th Annual Meeting of the Idaho State Medical Association at Sun Valley, July 6, 7, 8, 9, 1958.

FRED E. WALLBER, M.D., Idaho Falls
Program Committee Chairman



Guest



Don H. O'Donoghue, M.D.

Professor of Orthopedic Surgery
University of Oklahoma School of Medicine
Oklahoma City, Oklahoma

1. Treatment of Injuries to Athletes
2. Treatment of Injuries about the Ankle
3. Treatment of Ligament Injuries of the Knee
4. Treatment of Fractures of the Patella

H. Corwin Hinshaw, M.D.

Clinical Professor of Medicine
Stanford University School of Medicine
San Francisco, California

1. Persisting and Recurring "Pneumonia"—Diagnostic Problems
2. Pulmonary Emphysema—Management Problems
3. The Solitary Circumscribed Pulmonary Nodule
4. Sarcoidosis—Important Diagnostic Problem in Many Fields of Medicine

66th Annual Session

Idaho State Medical Association

Sun Valley... July 6-9, 1958

Speakers...



Carl A. Moyer, M.D.

Bixby Professor of Surgery
Washington University School of Medicine
St. Louis, Missouri

1. Just What is the Malignant Propensity of Colonic Polyps
2. The Assessment of Operative Risk
3. Hyperparathyroidism—Its Diagnosis and Treatment
4. Chronic Non-Neoplastic Cutaneous Ulcers and Their Treatment



Ralph C. Benson, M.D.

Professor of Obstetrics-Gynecology
University of Oregon School of Medicine
Portland, Oregon

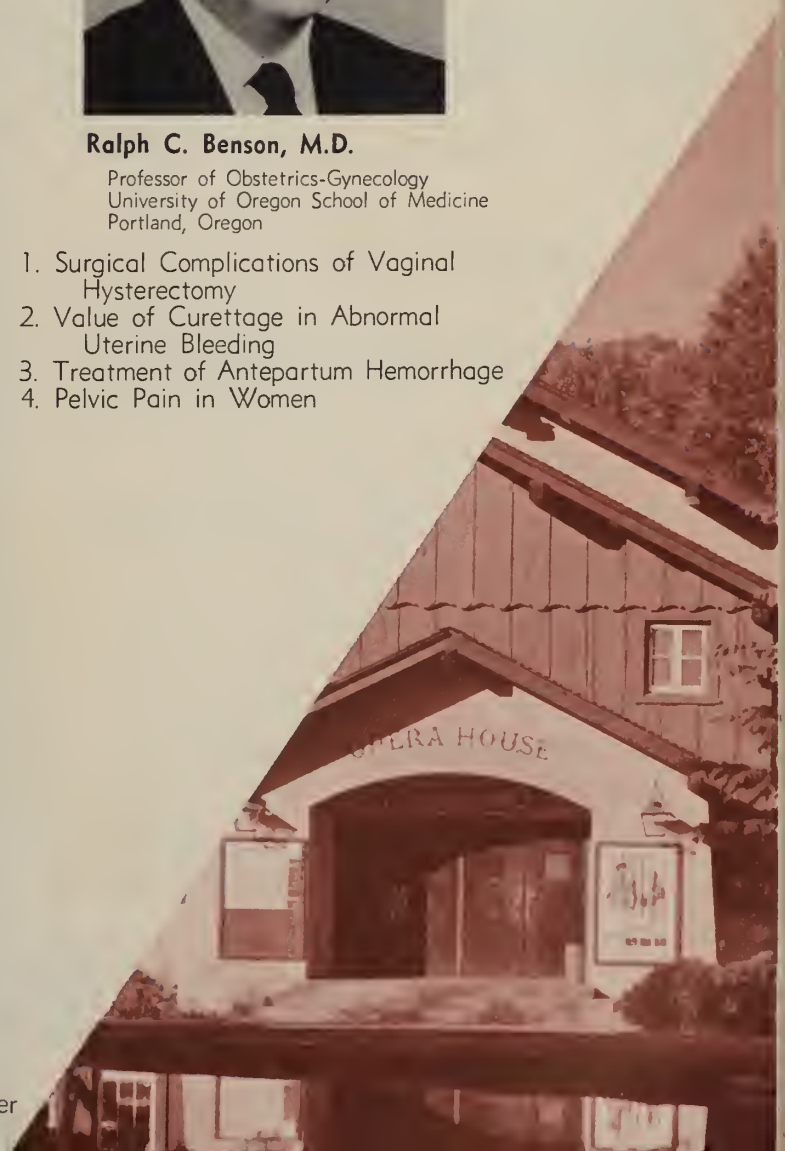
1. Surgical Complications of Vaginal Hysterectomy
2. Value of Curettage in Abnormal Uterine Bleeding
3. Treatment of Antepartum Hemorrhage
4. Pelvic Pain in Women



C. Donald Creevey, M.D.

Director, Division of Urology
University of Minnesota School of Medicine
Minneapolis, Minnesota

1. Use and Abuse of Catheters
2. Care of Urinary Bladder after Operations
3. Conservative Treatment of Prostatic Cancer
4. Surgical Injuries of the Ureter





social events at *SUN VALLEY*

Idaho State Medical Association
annual session...July 6-9, 1958

- OPEN HOUSE
- TRAIL CREEK BARBECUE
- ANNUAL STAG PARTY
- LADIES DINNER
- TRAP SHOOT
- GOLF TOURNAMENT
- PRESIDENT'S BANQUET





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NOW, for the first time, anywhere, a complete fun package for skaters! Your choice of any week, from June 30 through August 31 . . . ice skating instruction and rink admissions, accommodations in a Skater's Chalet, all meals, swimming, tennis, dancing and evening entertainment, for the one reasonable rate of . . . . .

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Idaho Chapter of AAGP To Meet May 10

L. F. Lesser of Boise, president of the Idaho Chapter, American Academy of General Practice, has announced that the organization, in cooperation with Lederle Laboratories, Inc., will sponsor a one-day clinical session in Boise on Saturday, May 10.

Speakers for the meeting, which will be held at the Hotel Boise, include James B. Donaldson, associate professor of medicine, Hahnemann Medical College, Philadelphia; Arthur D. Hengerer, associate professor of obstetrics and gynecology, Albany Medical College, Albany, New York; William H. Requarth, associate professor of surgery, University of Illinois School of Medicine, Chicago.

State Board of Medicine

Three Temporary Licenses were granted in March. Receiving such licenses were:

Richard N. Smith, Twin Falls. Graduate of Ohio State University of Medicine, Columbus. M.D. Degree 1943. Internship Starling-Loving University Hospital, Columbus, 1944. Granted T-201 March 4, 1958. General.

Dale D. J. Chodos, Idaho Falls. Graduate St. Louis University School of Medicine, St. Louis, Missouri. M.D. Degree 1954. Internship, Salt Lake General Hospital, Salt Lake City, 1955. Pediatric residency, Salt Lake General Hospital, 1957. Granted T-202 March 7, 1958. Pediatrics.

David Clarence Valder, Moscow. Graduate University of Oklahoma School of Medicine, Oklahoma City. M.D. Degree 1951. Internship University Hospitals, Ann Arbor, Michigan. Surgical residency, University Hospitals, 1952-56. Granted T-203 March 7, 1958. General Surgery.

Nampa Physicians Club Formed

R. L. Rodwell of Nampa has been named president of the newly formed Nampa Physicians Club. E. R. Carlsson, Nampa, was named secretary.

Purpose of the club, according to Dr. Rodwell, is to allow physicians to meet and exchange ideas on medical care, new advances in medicine and problems of community welfare in general.

Idaho Society of Internal Medicine

William D. Forney of Boise, president for the Idaho Society of Internal Medicine, has announced that a dinner meeting of members of this society will be held at Sun Valley on Friday, September 26.

Bonner-Boundary Society Elects Officers

New officers of the Bonner-Boundary Medical Society elected at a recent meeting are:

PRESIDENT—Helen E. Peterson, Sandpoint.

SECRETARY-TREASURER—Fred E. Marineau, Sandpoint.

Eastern Idaho Tumor Board Elects Officers for 1958

Officers of the Eastern Idaho Tumor Board for 1958 are Robert Butz of Idaho Falls, president, and P. Blair Ellsworth also of Idaho Falls, reelected secretary-treasurer.

The committee of the Tumor Board, which is sponsored by the Idaho Chapter of the American Cancer Society, is comprised of staff physicians from Sacred Heart and Idaho Falls LDS Hospitals. Members from Sacred Heart Hospital are: Dr. Butz, Philip Leavitt, J. A. Williams, and Dauchy Migel. From Idaho Falls LDS Hospital are: Morris Henninger, Bland Geddings, Newell Battles, and Dr. Ellsworth.

During 1957, the Tumor Board saw 89 patients. Of these patients, 48 were presented in person by their family physician. Patients came from eight counties in Southeastern Idaho, three patients from Montana, and one from Utah.

The Board, which meets at 8 A.M. each first and third Friday of the month at Idaho Falls LDS Hospital, sees cancer cases or suspected cases without charge to the patient.

Utah and Idaho Internists To Present Papers

The American College of Physicians combined regional meeting of Utah and Idaho members will be held at Sun Valley, September 27. A number of papers will be presented by Utah and Idaho internists. Chester Keefer, Director and Wade Professor of Medicine, Boston University School of Medicine, has been invited to address the two-state session, R. P. Howard of Pocatello, Idaho Governor for the College, announces.

Maurice M. Burkholder, Boise, is program chairman for the session.

Boise Valley Chapter of ACS To Meet June 14

Spring session of the Boise Valley Chapter of the American College of Surgeons will be held in Boise on Saturday, June 14, A. Curtis Jones of Boise, president, reports. Guest speaker will be Clarence J. Berne, Los Angeles, professor of surgery, University of Southern California School of Medicine

Diabetes Association Honors Glenn Voyles

Glenn Q. Voyles, Twin Falls, has been appointed Idaho Governor for the American Diabetes Association for a three-year term. Dr. Voyles was notified of his appointment by John A. Reed of Washington, D.C., president of the American Diabetes Association.

County Health Officer Appointed

Latah county commissioners have appointed Charles E. Marsh to succeed John M. Ayers of Moscow as county health officer.

Pacific Northwest Pathologists Hold Semi-Annual Meeting in Portland

Spring Session of Pacific Northwest Society of Pathologists was held at the University of Oregon Medical School, Portland, May 2 and 3. President Harold E. Taylor of Vancouver, B. C., presided.

Immediately preceding the meeting, April 29 to May 1, a radioisotope technique workshop, first of its kind, was conducted by the department of clinical pathology at the Medical School. It was sponsored by Pacific Northwest Society of Pathologists, College of American Pathologists, and American Society of Clinical Pathologists. Raymond D. Grandahl and Tyra T. Hutchens directed the workshop, which included demonstration of the latest uses of radioisotopes in diagnosis and treatment of disease.

Following is the list of guest speakers and their subjects: John B. Hazard, pathologist of the Cleveland Clinic, Cleveland, Ohio, Pathologic Anatomy of Thyroid Disease; Frank B. Johnson, Armed Forces Institute of Pathology, Washington, D.C., Special Stains in Pathologic Anatomy Diagnosis; Mr. Harry C. Ehrmantraut, Director of Applications Research Department, Spinco Division, Beckman Instruments, Inc., Palo Alto, Cal., Clinical Significance of Paper Electrophoresis; J. B. Thiersch, Seattle, Cytosurgical Diagnosis of Breast Lesions; Warren C. Hunter, professor of pathology at University of Oregon Medical School, Portland, Concomitant Stromal Endometriosis and Adenomyosis of Uterus; Nelson R. Niles, department of pathology, UOMS, Portland, Myeloproliferative Disease; and Mr. Gatlin Brandon, Director of Hygienic Laboratory, Oregon State Board of Health, Portland, Virus Problems of Importance in the Clinical Laboratory. John W. Macgregor, professor of pathology at University of Alberta aculty of Medicine, Edmonton, Alberta, moderated the semi-annual pathologic anatomy seminar.

Asia-Pacific Academy of Ophthalmology Sponsoring Good Will Tour to Orient

Following the International Congress of Ophthalmology in Brussels in September 1958, the Asia-Pacific Academy of Ophthalmology is sponsoring a good will tour of the Orient. During the one-month tour, joint meetings will be held with ophthalmologists in Pakistan, India, Thailand, the Philippines, and Hong Kong.

Principle aims of the Academy, which was organized in 1957, are to extend ophthalmologic knowledge and to advance the arts and sciences of ophthalmology and related sciences in Asia and in countries bordering the Pacific Ocean; to stimulate research in tropical and systemic eye diseases that are particularly prevalent in Asia and in countries bordering the Pacific Ocean; to cultivate social and fraternal relationship of physicians residing in Asia; and to offer postgraduate instruction in ophthalmology through lectures, round-table discussions, seminars, clinics and films.

Physicians wishing to participate in the postgraduate lectures and seminars on ophthalmology should contact: William J. Holmes, M.D., Liaison Secretary, Suite 280, Alexander Young Building, Honolulu 13, Hawaii.

For information regarding travel arrangements write to: Compass Travel Bureau, 55 W. 42nd Street, New York 26, N.Y.

American Medical Golfing Association Annual Tournament June 23 at San Francisco

Forty-Third Annual Tournament of the American Medical Golfing Association will be held in conjunction with the AMA Convention June 23 in San Francisco. Tee off time is scheduled from 8 A.M. to 2 P.M. at the beautiful Olympic Lakeside Golf and Country Club. The entire day will be devoted to rest and relaxation with golf, luncheon, banquet, and a prize for everyone. The committee invites all golfing physicians to attend. Handicaps scratch to 30 in flights.

For further information you are asked to contact James J. Leary, M.D., Secretary, 450 Sutter Street, San Francisco, Cal.



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Report from the Washington Office of AMA

Thomas H. Alphin, M.D.

Washington, D.C.—The recession continues to influence the course of much legislation, as Congress points toward the windup of its session. Even in the health fields, bills that promise in one way or another to alleviate unemployment appear to have priority. At the same time, federal departments are favoring construction grants to projects that can be started without much delay.

In legislation, here are some of the developments:

1. Liberalizations in unemployment compensation and in social security are receiving constant attention on Capitol Hill. At this writing, the bill to extend the period for unemployment compensation payments is making progress. There is the possibility also that it will make participation mandatory for all employers.

Prominent among proposed changes in the social security program itself is the Forand bill for free hospitalization and in-hospital medical care and surgery for persons entitled to social security benefits. It is being pushed by the AFL-CIO and by some liberal Democrats, and opposed by the American Medical Association and a growing group of other organizations. The opposition is convinced that the Forand bill is unnecessary, that it would be far more costly than anticipated, and that it would point the way to a broad national medical care plan for all persons covered by social security.

2. A controversial bill to vastly increase money available for grants for community facilities—waste plants, hospitals, state medical schools included—is active in Congress. One proposal is to vote a billion dollars, to be lent out (at about 3½ per cent interest for 50 years) to communities. The objective here, as in many other measures, is to put people to work on construction projects.

Federal agencies have evolved a number of schemes to get U.S. dollars into circulation faster, and are attempting to work out others. In each case described below, no additional appropriation is involved; money is shifted from a project that is getting a slow start to one that is about ready to begin construction. Also, all totals given represent amounts to be spent by the sponsors as well as the federal government. Here are arrangements already made:

1. In January, the Hill-Burton hospital construction program called for U.S. grants to start buildings valued at $381 million; this figure has been stepped up to $405 million by July 1.

2. Between January and July 1, the original plan was to allocate enough money to start $120 million in construction for health research plants. This has been increased to $182 million.

3. Before the recession became so prominent an issue, the plan was to grant enough U.S. money to start construction of $170 million in sewage plants. Under pressure, the total has been increased to $215 million.

In most cases, when a project is delayed and thus loses its allocation, the grant is re-scheduled for next fiscal year.

° ° ° ° ° °

American Medical Association is one of the four sponsors of a new Joint Council to Improve the Health Care of the Aged. The others are American Dental Association, American Hospital Association and American Nursing Homes Association.

The council already has authorized research in a number of directions to (a) analyze the health needs of the aged, (b) appraise available health resources for them, and (c) develop the best possible health care for them, regardless of their economic status.

Effects of this united front action should be felt when Congress takes up the Forand bill and other legislation pointed toward relief for the aged.

Notes:

American Medical Association is asking Congress to strengthen the Civil Aeronautics Administration's medical department so it can properly supervise fliers' physical examinations and advise on other aviation medical matters. AMA also is recommending that an office of civil air surgeon and a medical research laboratory be established within CAA.

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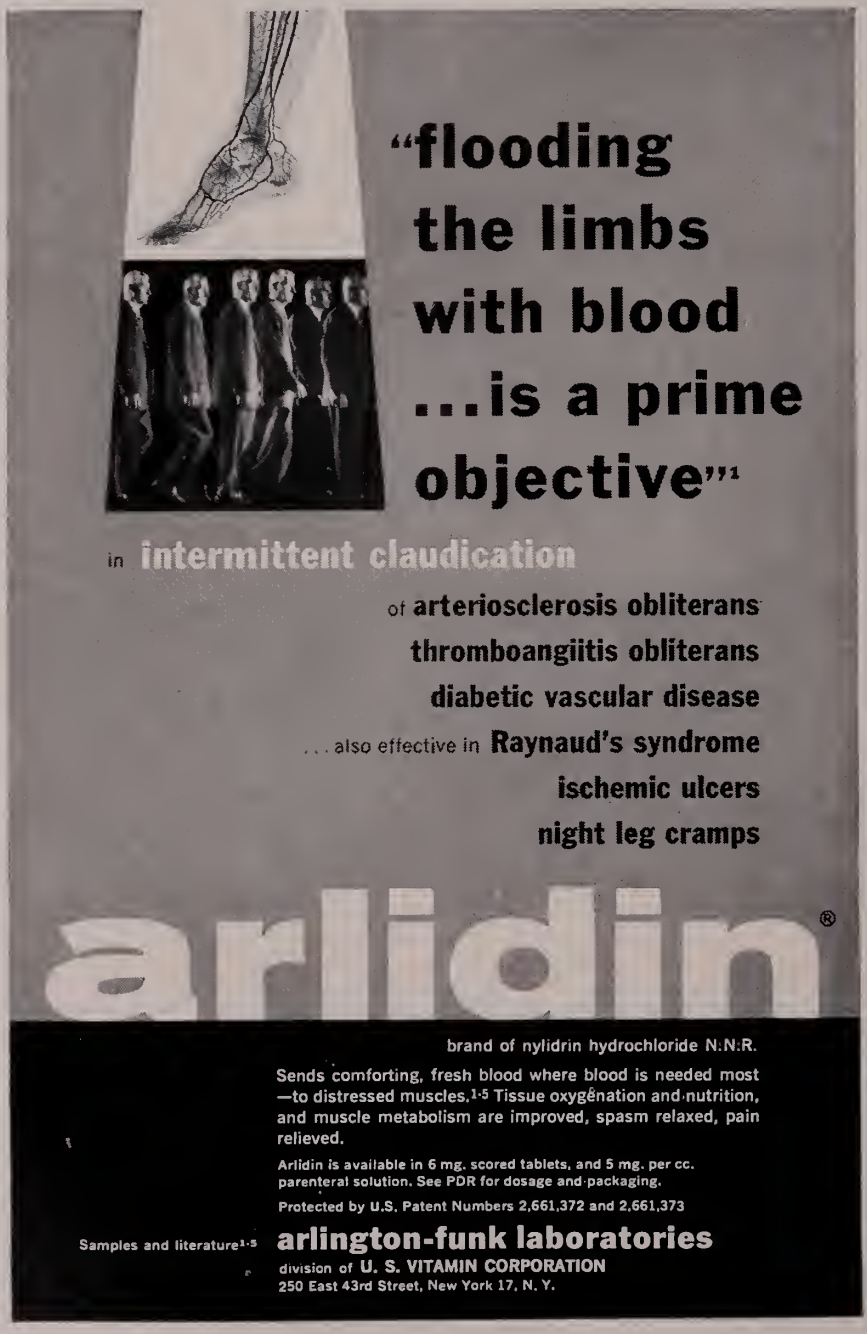
Congress has under consideration several plans for reorganizing the Defense Department, two of which would result in elimination of the office of Assistant Secretary for Health and Medical matters.

Progress on appropriations bills indicates more money for research at the Institutes of Health, and at least $121.2 million (the same as this year) for Hill-Burton hospital construction.

Andrew Biemiller, top legislative man for the AFL-CIO, told a recent delegation just returned from visiting Capitol Hill: "Congressmen are falling all over themselves in wanting to do something in the recession. I think we can cash in on this."

Testifying before a House appropriations subcommittee, Secretary Folsom said coverage under major medical insurance has gone up almost twenty-fold in the last five years.

Medicare is working up a new claim form that will have a check-list of common errors on the back; this is intended to eliminate much correspondence now necessary when the physician makes an error on the form.



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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

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RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

How to Write Scientific and Technical Papers. By Sam F. Trelease, Ph.D., Columbia University. 184 pp. Price $3.50. The Williams & Wilkins Co., Baltimore. 1958.

New and Nonofficial Drugs 1958. Containing descriptions of therapeutic, prophylactic and diagnostic agents evaluated by the Council on Drugs (Formerly, Council on Pharmacy and Chemistry) of the American Medical Association. An Annual Publication Issued Under Direction and Supervision of the Council. 645 pp. Price $3.35. J. B. Lippincott, Co., Philadelphia and Montreal. 1958.

Your Speech Reveals Your Personality. By Dominick A. Barbara, M.D., F.A.P.A., Foreword by Nolan D. C. Lewis. 174 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Current Therapy 1958—Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D., and 12 Consulting Editors. 827 pp. Price $12.00. W. B. Saunders Co., Philadelphia and London. 1958.

Medicine and Man: Story of the Art and Science of Healing. By Ritchie Calder, Science Editor of "London News Chronicle;" Chairman, Social and International Relations of British Association for Advancement of Science; Fellow, American Association for Advancement of Science; and Chairman, Association of British Science Writers. 256 pp. Price $.50. The New American Library, New York. 1958.

The Story Behind the Word—Some Interesting Origins of Medical Terms. By Harry Wain, A.A., B.S.M., M.D. (cum laude), M.S.P.H., Diplomate, American Board of Preventive Medicine; Fellow, American College of Preventive Medicine; Fellow, American Public Health Association; Member, Royal Society of Health, London, England; Member, American Medical Association; Health Commissioner, Mansfield-Richland County, Ohio. 342 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

(Continued on page 679)

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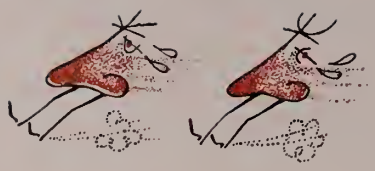
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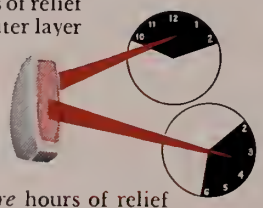
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(Continued from page 677)

Antibiotics Annual 1957-1958, Proceedings of Fifth Annual Symposium on Antibiotics, October 2, 3, and 4, 1957, Washington, D.C. Edited by Henry Welch, Ph.D., Director, Division of Antibiotics, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D.C.; and Felix Marti-Ibanez, M.D., Editor in Chief of "MD Medical Newsmagazine;" Professor and Director of Department of History of Medicine, New York Medical College, Flower and Fifth Avenue Hospitals; Associate Editor of "Antibiotics & Chemotherapy" and of "Antibiotic Medicine and Clinical Therapy," New York, N.Y. 1070 pp. Price $12.00. Medical Encyclopedia, Inc., New York. 1958.

Endocrine Pathology of the Ovary. By John McLean Morris, M.D., Associate Professor of Gynecology, Yale University School of Medicine, New Haven, Conn.; and Robert E. Scully, M.D., Clinical Associate in Pathology, Harvard Medical School; Associate Pathologist, Massachusetts General Hospital, Boston, Mass. 151 pp. Illustrated. Price $8.50. The C. V. Mosby Co., St. Louis. 1958.

General Pathology—Based on Lectures Delivered at the Sir William Dunn School of Pathology, University of Oxford. Ed 2. Edited by Sir Howard Florey, Professor of Pathology. 932 pp. Illustrated. Price $16.00. W. B. Saunders Co., Philadelphia and London. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlomert, Librorian, King County Medicol Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library oppreciotes, but does not demond, reimbursement for postoge.

CHEMISTRY OF BLOOD COAGULATION. By Paul Morawitz, Marburg, Germany. Translated by Robert C. Hartmann, M.D., and Paul F. Guenther, Ph.D., from the Departments of Medicine and German, Vanderbilt University, Nashville, Tennessee. 194 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Paul Morawitz was 26 years old when he published this review on "Die Chemie der Blutgerinnung" in 1905. The article was outstanding in its critical and mature review of the hopelessly confused field of coagulation, and the young author put it all together in what is now the classical theory for the coagulation of blood. His theory is still the unshaken basis for the more fancy modern concepts. No student of coagulation should allow himself to remain ignorant of this work. The reading will provide new ideas and prevent the laborious "discovery" of facts already known. Probably, it will also create a somewhat more humble sense of proportions in this field of medicine. For this reason, any student or physician with academic interests will enjoy the reading of this book.

It is a sad fact that this work can no longer be understood in its original language (Morawitz himself cites freely from the Latin, French, English, Italian, and German literature). The translators have done a careful and painstaking work, preserving the original style of the author, and yet their language is well balanced and easily read. The footnotes give modern comments where needed, and the bibliography with its 490 entries has been brought up to modern library standards.

I wish to congratulate the publisher and the translators for this book. Let it be the first in an inexpensive series of "Classics in Hematology."

Peter F. Hjort, M.D.

GENERAL PATHOLOGY. Ed. 2. Based on Lectures Delivered at the Sir William Dunn School of Pathology, University of Oxford. Edited by Sir Howard Florey, Professor of Pathology. 932 pp. Illustrated. Price $16.00. W. B. Saunders Co., Philadelphia and London. 1958.

This is a superb basic book for every serious student of disease. Neither a reference text for practicing pathologists, nor a book of essentials for the average medical student, it is a lucid review of the experimental evidence which has led to our present knowledge of disease processes, documented by pertinent references which are quite up-to-the-minute for a textbook, including a number of papers published in 1957. The title of the first edition of this book was Lectures on General Pathology. As is suggested by the new title, several chapters on such topics as tumors and thrombosis have been added in this second edition to make the book more complete. Based upon lectures given to advanced students at Oxford, its chapters are monographed by experienced investigators who have contributed new knowl-

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edge to their special fields. The editor, Nobel prize winner Sir Howard Florey, Professor of Pathology at Sir William Dunn School of Pathology at the University of Oxford, has written 10 of the chapters himself; 14 collaborators provide the other 33 chapters. The style is straightforward and clear and there is little tendency to fill with speculation the gaps that exist in our knowledge. Many explanations are given "in an unashamedly teleological way" as McFarland says in his discussion of blood coagulation, and elsewhere the teleological point of view seems to creep unannounced into the discussion. Some readers may be indifferent to this or find it helpful, but others may agree with me and regard it as unnecessary and distracting.

This book should provide great pleasure to any physician who likes to consider disease processes in their basic terms, and to the superior medical student interested in experimental work it should be a valuoble source of fundamental information and stimulation.

Gordon LaZerte, M.D.

THE PLACEMENT OF ADOPTIVE CHILDREN. By J. Richard Wittenborn, University Professor of Psychology and Education, Rutgers University, New Brunswick, New Jersey. Assisted by Barbara Myers, Research Assistant in Sociology and Psychology, Yale University. 189 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

I can not agree, as the cover states, that this book gives definite answers to the many questions raised by adoption. Indeed as stated in the conclusion, "Unfortunately research does not provide such answers."

If there were fewer apologies for the weakness of research in this diffuse and nebulous field, the book would be much more readable. To me this is an exceedingly important area of social endeavor about which we know little. The table of contents suggests the answer can be found here—i.e., "The evaluation of adoptive parents," "Matching adoptive parents with adoptive children," "Independent placements" and so forth.

Using a direct quote from the conclusion: "Since our primary research is relevant to matters of social significance our readers will tend to expect us to provide answers which are unambiguous in their implication, free from alternative interpretation and comprehensive in their applicability." Though the book does not provide such answers and is at times wordy and difficult to follow, I would still feel it is recommended reading for those concerned in any way with adoption.

This should be required reading for all physicians who engage in direct and independent adoption that they may fully understand the magnitude of the problem.

Charles W. Day, M.D.

AIDS TO OPHTHALMOLOGY. Ed. 11. By P. McG. Moffatt, M.D. (Lond.), M.R.C.P., F.R.C.S. (Eng.), D.O.M.S., Consultant Ophthalmic Surgeon and Lecturer, Moorfields Eye Hospital, Hammersmith, West London and St. Mark's Hospital Groups; Lecturer, Post-Graduate Medical School; Recognized Teacher of London University; Senior Ophthalmic Consultant and Adviser, London County Council Central Medical Staff. 282 pp. Illustrated. Price $3.00. Wiiliams & Wilkins Co., Baltimore. 1957.

This textbook, which is written in the traditional easy flowing English style, covers ophthalmology in a neat, exacting and concise manner. The commonly seen eye conditions and also many of the rarer entities are discussed briefly but adequately for the beginner in ophthalmology. The author is faithful to the old established ocular remedies although by frequently revising the textbook he is able to add

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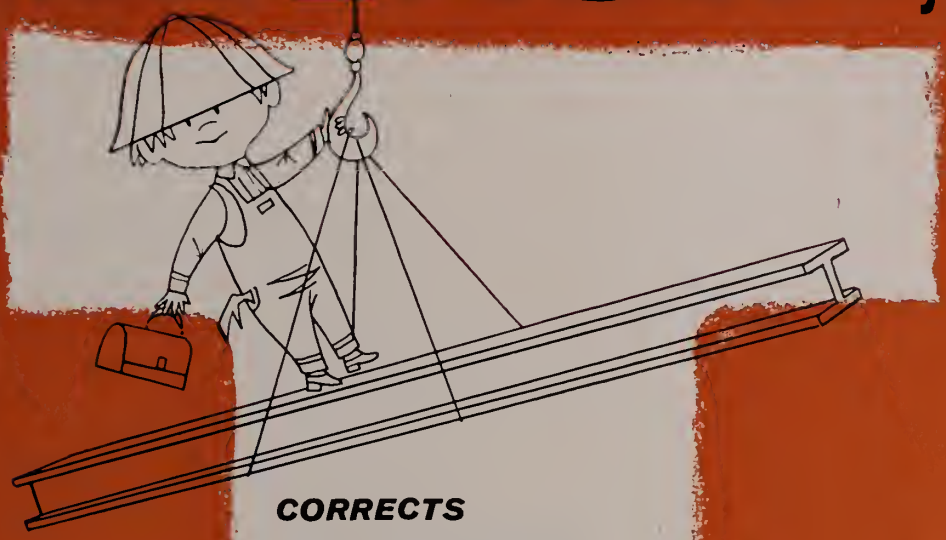
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newer aids in treatment, such as the antibiotics and the steroids. Several chapters are devoted to objective examinations of the eye and determination of and correction of refractive errors. Perhaps the author goes into more detail in this latter subject than is necessary for the physician who does not make ophthalmology his career. A very useful final chapter, which deals with the visual requirements of various branches of the military and other vocations of the United Kingdom, is included. I recommend this volume as a handy reference to any medical practitioner who already does not possess a suitable ophthalmologic textbook. It seems likely that this work will remain a popular text through subsequent editions.

Louis J. Sarro, M.D.

PRINCIPLES OF OPHTHALMOSCOPY. By John K. Erbaugh, M.D., Norristown, Pa. 69 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

This is a small book of some 59 pages, exclusive of an appendix which is devoted to the optical principles of ophthalmoscopy. The first chapter of four pages is devoted to opacities of the ocular media. The second chapter is devoted to a description of the disc, both in normal states and in pathologic states. Included in this chapter is a very concise description of the ophthalmoscopic changes of glaucoma. Chapter three is devoted to a description of changes in the blood vessels of the fundus. The fourth chapter is given to descriptions of retinopathies with discussions and descriptions of hemorrhages, macular stars, colloidal sclerosis, macular degeneration, drussen, exudates, and microaneurysms.

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Oregon State Medical Society ..... **Sept. 3-5, 1958, Portland**
Pres., V. W. Miller, Salem Sec., M. H. Parratt, Portland

Washington State Medical Association .... **Sept. 14-17, 1958, Spokane**
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Idaho State Medical Association ..... **Sun Valley**
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Alaska Territorial Medical Assaciation ..... **Fairbanks, May 15-17, 1958**
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Anchorage

North Pacific Society of Internal Medicine—Aug. 29-30, 1958
Victoria, B.C.
Pres., B. F. Francis, Seattle Sec., J. H. Cramptan, Seattle

Northwest Practologic Society ..... **Sun Valley, Aug. 27-29, 1958**
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Pacific Northwest Obstetrical and Gynecological Association .. **Seattle**
June 30-July 2, 1958
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Pacific Northwest Society of Pathalogists .... **May 2-3, 1958, Portland**
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Pacific Northwest Society of Plastic and Reconstructive Surgery —
May 23-24, 1958—Tacoma
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Oregon Dermatologic Society ..... **Portland, Second Wednesday (Nov., Jan.-Apr.)**
Pres., T. S. Saunders, Partland Sec., L. F. Ray, Partland

Oregon Pathologists Assaciation—Secand Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., H. Harris, Partland Sec., J. H. Lium, Partland

Oregon Radiological Society—Secand Wednesday thraugh schaal year—University Club, Partland
Pres., J. W. Laamis, Partland Sec., C. V. Allen, Partland

Oregon State Society of Anesthesiologists ..... **Portland, Third Friday (except June, July, Aug.)**
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Portland Academy af Hypnosis ..... **Third Monday (Sept.-May)**
Pres., D. Steffanaff Sec., H. Clagett Harding

Portland Academy af Pediatrics ..... **First Manday**
Pres., J. P. Whittemare Sec., L. H. Smith

Portland Surgical Society ..... **May 9, 10, 1958**
Pres., Russell Jahnsrud Sec., C. G. Petersan

WASHINGTON

Puget Sound Academy of Ophthalmalogy and Otolaryngology — Third Tuesday (Oct.-May)—Seattle or Tacoma
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Puyallup Valley Surgical Society ..... **Fourth Tuesday (Sept.-May)**
Pres., K H. Sturdevant, Puyallup Sec., V. M. Murphy, Sumner

Seattle Academy of Surgery ..... **Nav. 20, 1958**
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Seattle Gynecological Society ..... **Third Wednesday (except June, July, Aug., Dec., Feb.)**
Pres., P. G. Peterson Sec., L. B. Danaldsan

Seattle Pediatric Society ..... **Third Friday (Sept.-May), College Club**
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Seattle Surgical Society **1959**
Faurth Manday, Sept.-May
Pres., W. E. Watsan Sec., W. O. Mills

Spokane Academy af General Practice ..... **Dec. 6, 1958**
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Spokane Surgical Society ..... **April 11, 1959**
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Tacoma Surgical Club ..... **May 3, 1958**
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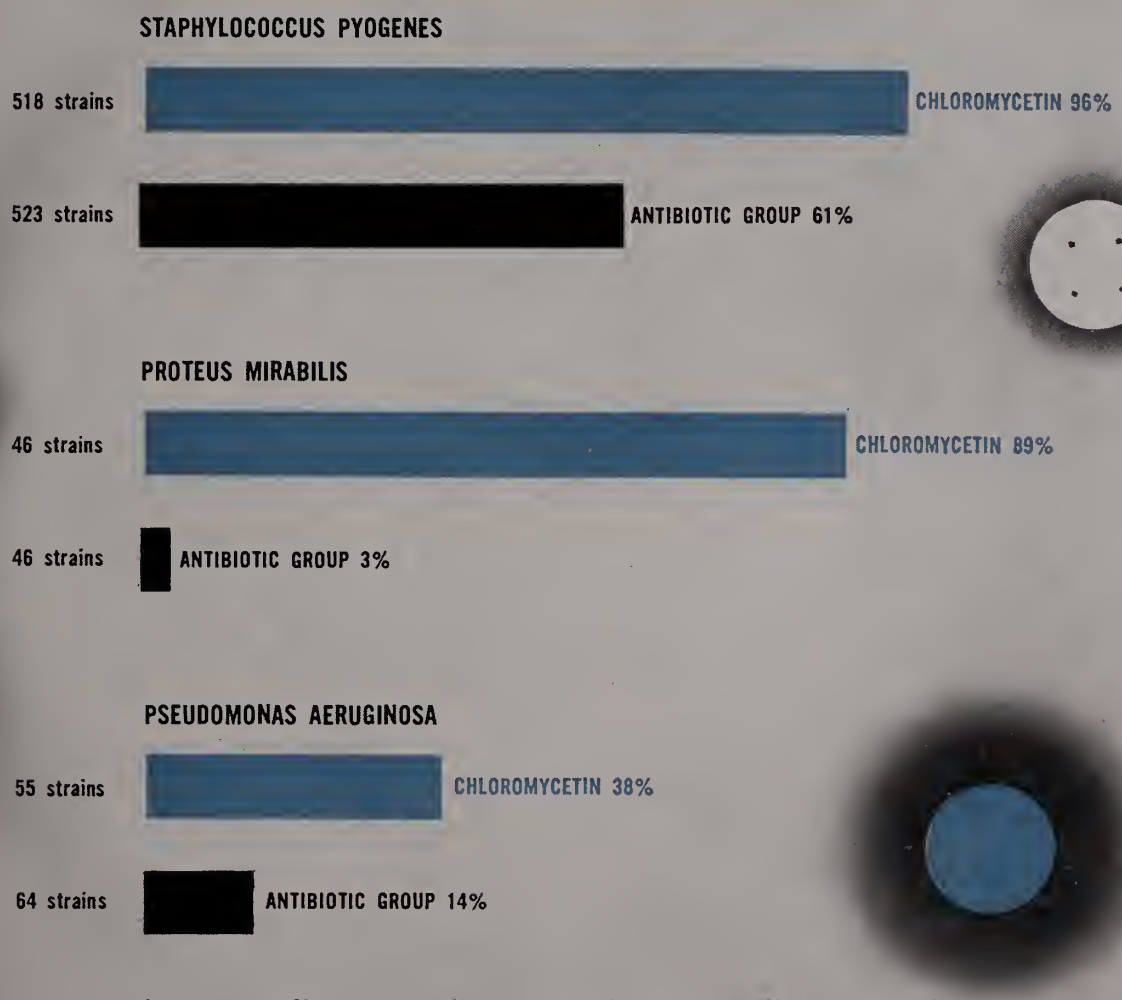
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3. Bruner, J. M. R.: U. S. Armed Forces M. J. *6*:489 (April) 1955.
4. Diamant, A. H.: Nord. med. *48*:1324 (Sept. 26) 1952.
5. Wendt, G. R., and Cameron, J. S.: Personal communication, Jan. 4, 1955.
6. Stough, A. R.: Personal communication, Aug. 10, 1957.

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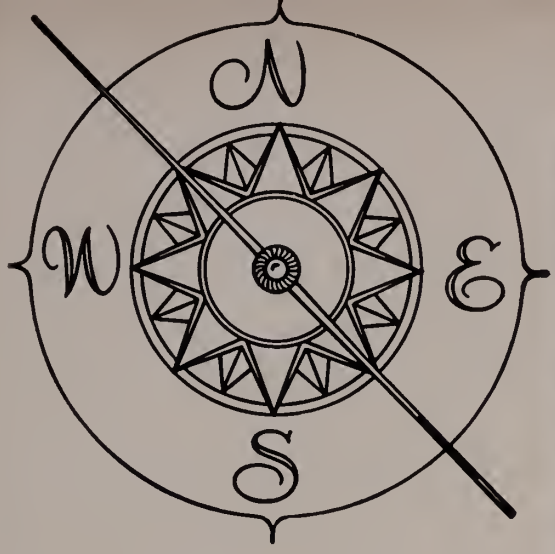
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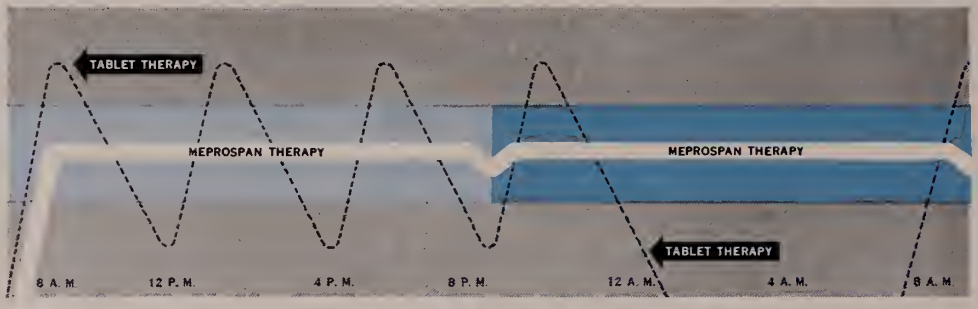
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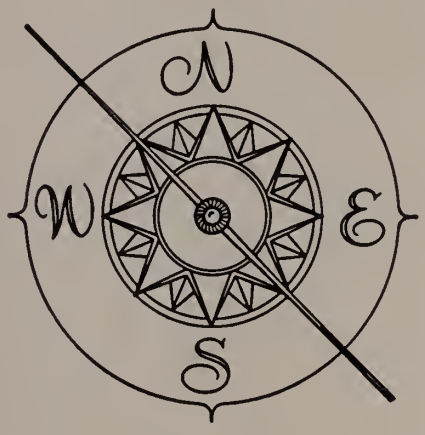
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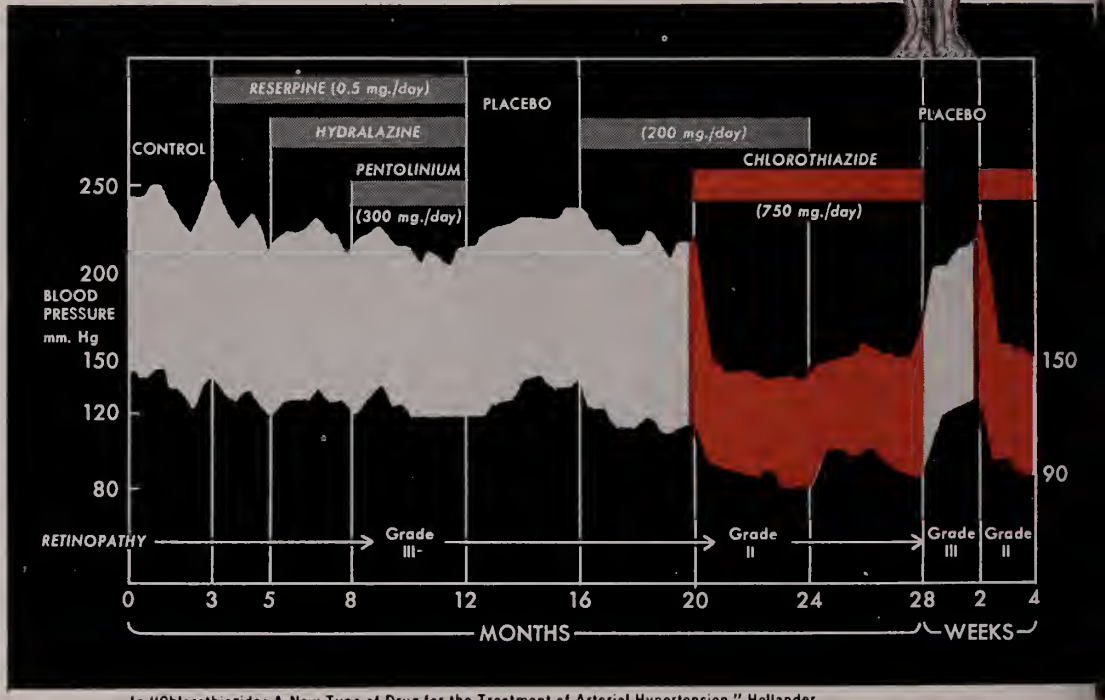
Wilkins, R. W.: New England J. Med. **257**:1026, Nov. 21, 1957.

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Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166**:137, Jan. 11, 1958.

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In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1957.

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1. Murphree, H.B., Jr.; Jenney, E.H., and Pfeiffer, C.C.: 2-Dimethylaminoethanol as a Central Nervous System Stimulant. Presented before Assoc. for Research in Nervous and Mental Disease, New York, Dec. 12-14, 1957. To be published.

In Exhaustion and Depression—In a study of over 100 patients suffering from various psychiatric disorders, especially exhaustion and mild depression, the clinical effect of 'Deaner' was to increase energy and to relieve depression in over 70%.

2. Lemere, F., and Lasater, J.H.: Am. J. Psychiat. *114*:655 (Jan.) 1958.

In Learning Problems—Some of the children with reading problems and other learning defects have improved markedly during their treatment with 'Deaner'.

3. Oettinger, L.: To be published.

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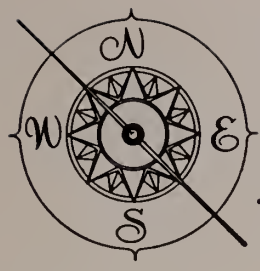


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SANDOZ



CORRESPONDENCE

Internal Mammary Ligation

Portland, Oregon

EDITOR, NORTHWEST MEDICINE:

With considerable amazement I note that a procedure so ill conceived as internal mammary artery ligation continues to be described and popularized for the treatment of coronary heart disease. Already, many of these patients so treated by some of our over-zealous surgical colleagues are coming home to roost. This in no way bears any reflection upon the surgical ability of these people but rather underlines the necessity for a more objective approach to the problem of evaluating any newly-publicized therapeutic tool in the treatment of coronary disease.

Almost every therapeutic agent in the treatment of coronary disease, even placebos, has been associated frequently with initial good results if recommended with sufficient enthusiasm. Unfortunately, these good results are usually measured in terms of subjective responses even though objectively demonstrable continued myocardial deterioration may be the case when these patients are followed sufficiently long.

In the April issue the article on Internal Mammary Ligation describes several cases in which immediate relief was noted following this procedure. The follow-up period in this series as well as others now appearing in the literature is much too short to allow a proper evaluation of this surgical procedure for the management of coronary disease. It seems almost inconceivable that such immediate symptomatic improvement as is reported in this paper and in others can be based on anatomic and physiologic factors.

I would call your attention to a recent paper (Adams, R., Internal mammary ligation for coronary insufficiency, New England J. Med. 258:113-115, Jan. 16, 1958) in which the author attempts to separate fact from fancy in evaluating the results following internal mammary artery ligation. While the number of cases are only a few, the method is truly objective and sheds a great deal of light on the problem. At operation in a few cases, each internal mammary artery was exposed and a ligature placed but not tied. After an initial assessment of the effects from the operative procedure alone, the ligatures were tied and further evaluation made. It is noteworthy that pain disappeared in these cases before the internal mammary arteries had been ligated but after the patients thought they had been ligated. In a further appraisal of this problem the authors were unable to verify the claim made by the proponents of this procedure that the minute volume of flow from the pericardiophrenic artery is increased following occlusion of the internal mammary artery. Even if such increased flow resulted from this procedure, it has only been presumed by proponents that this increased flow finds its way into the coronary arterial system in an effective fashion.

Hinton, Lord and associates have attempted to measure this presumed increased coronary blood flow in dogs following the ligation of the internal mammary arteries. This was done by diverting all the blood from the heart to a heart-lung machine and placing a catheter in the right ventricle. All the blood reaching the catheter came, primarily, from the coronary sinus and the thebesian veins. Since the aorta and the pulmonary artery were occluded, the blood draining from the catheter placed in the right ventricle could reach the heart only as a result of the procedure. No increase in blood supply was found following the ligation of the internal mammary arteries in contrast to a 3-5 per cent increase after abrasion of the heart wall and talc powdering.

In another study reported by Dimond and associates, alternate patients were subjected to a sham operation without ligation of the internal mammary arteries. It is interesting to find that the clinical results in those subjected to sham operations were equally as good and in some even better than in those in whom the internal mammary arteries had been ligated.

A more critical and objective approach to the problem of surgery in the treatment of coronary disease is needed if one is to separate fact from psychosomatic fancy. The fact that the procedure is a simple one to perform does not permit us to recommend it to our patients with reckless abandon. Any operative procedure, no matter how simple, is associated with greater hazards and risk in this group of cardiac patients. Every surgical procedure recommended for the treatment of coronary disease should have some sound physiologic basis to permit one to anticipate a greater or lesser beneficial effect upon the clinical course of the disease. There is reason to believe that this surgical procedure will disappear from the medical scene with the passage of time by virtue of its unsoundness and ineffectiveness. It would seem prudent to await further developments in this field rather than to recommend this procedure indiscriminately to those suffering from coronary disease.

Very sincerely yours,
Marvin Schwartz, M.D.

In Praise of Group Practice

EDITOR, NORTHWEST MEDICINE:

You would not expect a very receptive response to your April editorial on a clinic letterhead, and I guess I am not prepared to give you such. Your position is

(Continued on page 710)

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carefully thought out, and fairly and objectively expressed, and I am impressed by it, but I can not believe that general practice is a field of endeavor for which you can train physicians adequately, or an attitude that any one doctor can assume successfully. What I do think is that the general practice attitude can be assumed by a group of specialists, combining the best features of specialist training and experience with the best features of generalist breadth and human feeling for the patient as a man and a family member.

Common sense suggests, and experience confirms it over and over again, that a man who tries to benefit his patients by "rendering care beyond the confines of a narrow field" is likely to get into trouble through unfamiliarity with the signs and symptoms and proper methods of treatment of the conditions which he sees infrequently, and in the management of which he has had no special training.

No less serious, I freely admit, is the trouble arising out of the gun-barrel vision of a specialist who cannot or will not see a patient as a human being, but only as the repository of a disease entity. Here the necessity for what you properly call the "general practice attitude" is obvious. But for this specialist to step out of his field and start advising the patient about his or her orthopedic, gynecologic, cardiac or other trouble, is apt to be just as productive of mismanagement as for the GP to do so. Mother Nature protects people, of course, to a great extent, and so this does not often lead to serious things; but it can.

I submit that group practice avoids both hazards (score one for me for not alluding to Scylla and Charybdis!) *if* the men in the group individually never forget to regard each patient as a whole human being, and if their aim is medical service, jointly rendered, rather than prosecution of individual specialties and research projects. An internist, a gynecologist, a surgeon, even a dermatologist may properly act as a family medical adviser in such a setting, with one charge for one visit for one complaint, regardless of whether one, two or five doctors are needed to properly evaluate the patient's problem and prescribe treatment.

If a general practitioner is a skillful surgeon, ten to one he is hopelessly incompetent as a dermatologist or otologist, or orthopedist, except perhaps when dealing with the most commonly encountered problems. And his "egotism of a most intense kind," as Osler called it, will make it hard for him to recognize the situations in which he needs a little help. Even in such a group as I have described (I was describing our own), this can and does happen on occasion. But it happens a lot less often than it does in solo practice.

Orienting medical schools to the "general practice attitude" is a highly constructive suggestion. But orienting them to turning out general practitioners would be a backward step. And calling general practice an attitude because you think it should be an attitude does not make it one. It is still an area too—an area in which doctors decline to acknowledge their comparative incompetence in any medical field except a few in which it would surely lead to prompt disaster: neurosurgery, perhaps—though even there they may fail to turn in an adequate diagnostic performance, without even knowing it. To whom does the average GP turn, if he has a coronary, or a Jacksonian convulsion, or a visual field defect? Very seldom to his GP colleagues, I suspect. They are not good enough. And if they are not good enough for him, they are not good enough for the American public—not, at least, if something better can be made available. And it can, in time.

This is not for signed publication, of course; there might be some confusion as to the identity of the men I would gladly offend by it and those whom I do not mean and would not want to offend. It is too verbose anyhow, being written in a hurry. But I think it fairly expresses my reaction to your thought-provoking editorial and the correspondence it aroused.

Cordially yours,

P.S. Davison seems to be describing a more plausible fellow: a medical GP who would do internal medicine, pediatrics, preventive medicine and a little psychiatry and social work, but little or no surgery. Where groups are not feasible, this seems unobjectionable—but not where they are feasible. Training as broad as this can not be as deep as it needs to be nowadays.

Citing first responsibility to his group, author of the above letter requested that his name not be made public. Ed.

Private Practice in Italy

Hotel Londres Beau Rivage
Venice, Italy
1 May, 1958

Editor, Northwest Medicine:

We have been having a most pleasant vacation. The whole trip (Lisbon—Madrid—Paris—Geneva—Cannes—Florence—Rome—Venice) has been very exciting. We have driven here from Geneva and will drive back to Switzerland. The highways make the Oregon Coast Highway look like a straight line and are rough on the labyrinth but driving has otherwise been easy.

Until today, I had not contacted anything medical. I had met a Dr. Angelo Sperio, an internist in private practice here and chief of medicine at the civilian hospital here, and visited him today. Comparisons were most interesting. I find that Italy has no socialized medicine but that many patients belong to one of four or five large insurance companies. When they do, the patient pays a monthly fee and the doctor always takes the fee the insurance company pays, which fee is paid by the insurance company directly to doctor. Private patients in the office pay, for an average return visit, 3,000 lires (about $5) unless they have insurance, and four to five times that for an initial work-up. Welfare patients who are sent by the welfare doctor are paid on a welfare fee schedule. I was not able to get details.

The local hospital, an ex-monastery, is owned by the

(Continued on page 712)



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(Continued from page 710)

city of Venice and run by administrators. All private and welfare, and all service connected veteran patients are hospitalized here. If the patient has no insurance, he must pay private fees. If he is insured, the insurance pays (and time did not permit my host to enlarge on this). If welfare, the Italian National Government pays the hospital, as for veterans. However, if a private patient goes to the hospital, he pays the hospital for his medical care. The hospital board then pays the attending doctor at much smaller rates than the $5 per day office visit (I gather government rate varied, but was usually less than half).

There has been some political agitation in Italy for socialized medicine but not much. They feel it unlikely in near future. They feel Italian doctors are much better off than are the German or British doctors.

The medical income in Italy is divided as about in the U.S. (Internists here also are convinced that they deserve greater recognition, I may add!!)

Interestingly, there are over 800 doctors for some 300,000 people here. Dr. Sperio owns neither boat nor car. He walks to house calls. Venice is so compact that most areas are within 15 minutes fast walking.

Veterans in Italy are compensated only if a board of army doctors decides they have a service connected problem. There is no Veterans Administration, medical corps or hospital system as we know it. Veterans go to private hospitals.

Dr. Sperio's son is a second year medical student. In Italy there are five year primary schools for all, and eight year "gymnasiums" or secondary schools. Then, he went directly to a six year medical school—no college in between. Once he has passed examinations he will be entitled to practice medicine in Italy. Most young doctors spend two to four years in hospital first, however.

Regards.

Heyes Peterson, M.D.

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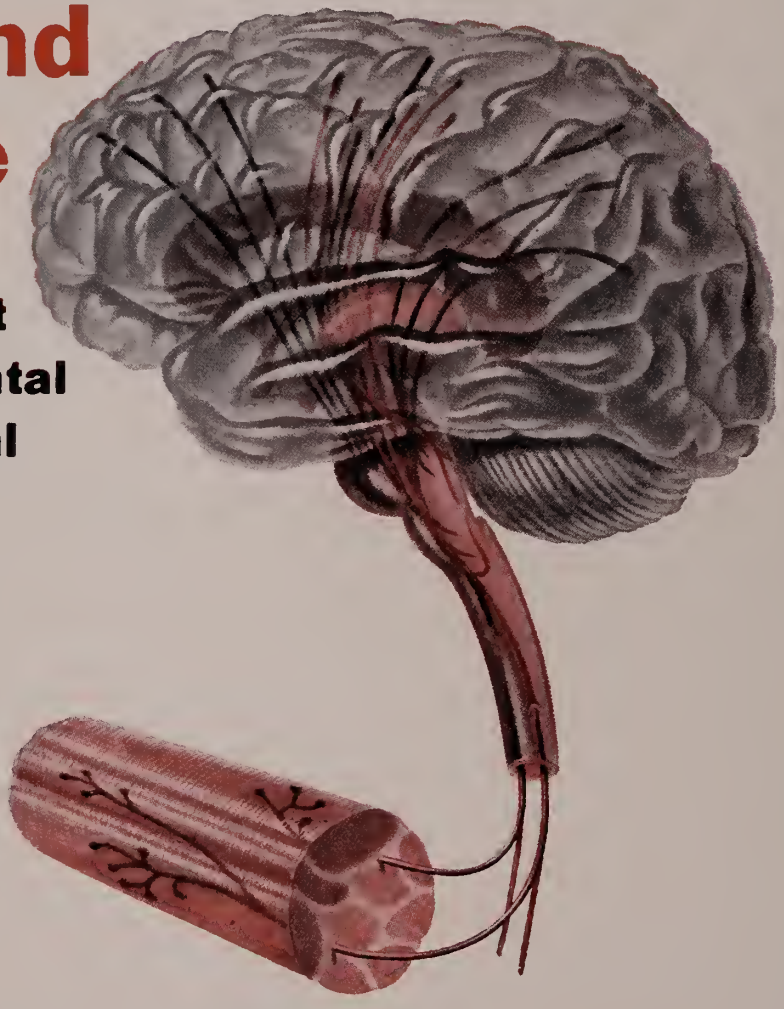
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 6
JUNE, 1958

EDITORIAL

Remodeling the AMA

When an organization is to be remodeled, it is necessary to follow much the same course usually followed in remodeling a building. First step is to examine the existing structure to determine what parts are serving useful purpose and what must be removed before modernization begins. Sometimes it is necessary to redefine the purposes for which the structure exists. The American Medical Association is being subjected to this kind of scrutiny at the present time. Extensive remodeling is in prospect.

This does not mean that the Association is failing to meet its obligations but it does mean that its services to the public and to the profession will be improved. The prospect should be pleasing to its critics as well as to its staunch supporters.

Need for critical examination of AMA purposes, as well as structure, was seen by the firm of Robert Heller and Associates when making recommendations contained in what is now known as the Heller Report. The Heller group had been retained by AMA Board of Trustees to make a business management survey of the Association, particularly of operation of the Chicago headquarters. The Report had been prepared at the time of the 1957 meeting in New York but not in time for any consideration at that session. At the conclusion of the New York meeting, Vincent Askey, Speaker of the House of Delegates, appointed a study committee, headed by William Hyland, Michigan, to go over the Report preparatory to submitting it to the House at Philadelphia in December. Further activities have followed in natural sequence. A second study committee is now gathering information on questions raised but not answered by the Heller organization. They concern factors other than business management.

Lewis A. Alesen, California, is chairman of the study committee now seeking opinions on four points listed in the Heller Report. Their genesis is best explained in the words of the Report itself:

> In meetings with officers and members during the course of this work, comments and opinions were received that went beyond the range of organizational and administrative problems. They showed that many in the ranks of the AMA are looking to the future and thinking in terms of broad policy and the course the Association should follow.
>
> Although not part of the assignment, these views should be of concern to those who guide the Association and they are therefore dealt with in this section. The more significant of them can be reduced to four specific actions to which it is recommended the Association give consideration. They are:
>
> 1. Redefine the central concept of AMA objectives and basic programs.
>
> 2. Place more emphasis on scientific activities.
>
> 3. Take the lead in creating more cohesion among national medical societies.
>
> 4. Develop an AMA concept of the best type of medical care for American families.

It is interesting that first position is given to the problem of AMA basic objectives and programs. Two paragraphs appeared under the first heading in the original Report. They emphasize the great, and so far unmet, need for all members to understand what the AMA actually is, what it does and how its work is done. The two paragraphs follow:

> There appears to be a general understanding among officers and staff as to the broad purpose of the work being done in medical education, scientific inquiry, social and economic problems of the medical profession, legislative issues, and public relations. Apparently, however, there is at present no unified concept, clearly understood throughout the Association and its membership, as to the main goals and the kind of programs needed to achieve them.
>
> A comprehensive and perceptive analysis of members' views seems to be needed. The collective aspirations of the group could then be determined and a clear-cut, written concept of principal goals drawn up in the light of today's needs. This then would guide the entire organization in planning specific programs for attaining the goals.

A questionnaire designed by the Alesen Committee has been sent to all officers, trustees, members and alternate members of the House, and members of councils and committees as well as to presidents of state organizations and to state medical journals. No doubt, any one of the above individuals would welcome opinions on the four points raised in the Heller Report. True cross section of member opinion is urgently desired by the committee.* •

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The Reasons for Our Existence

A letter published in the correspondence section of this issue should serve as an all-time example of one of the purposes of medical publication. It discusses ligation of the internal mammary artery. Those who are insecure, in the sense of that word as it is used by psychiatrists, will see in it a letter of criticism and will obtain from it a certain amount of discomfort. Those more mature individuals, who are able to disagree without emotional upheaval, will find it a delightful discussion of a current problem and the kind of intelligent disagreement which leads to progress through stimulation of thought. Founders of this journal had exactly this process in mind when they first talked of a medium of communication in the then isolated Pacific Northwest, nearly 60 years ago.

After several years of discussion, the first issue of NORTHWEST MEDICINE appeared in January 1903. Title of the first editorial was The Reason For Our Existence. Third paragraph of that editorial was as follows:

> **Furthermore, the existence of a monthly journal in a certain section offers a special inducement to members of the profession, tributary to it, to crystalize their views and experiences into definite expressions of thought for the benefit of their fellow physicians. Any man of intelligence and spirit aspires, at times, to withdraw from communion with himself and engage in contact with the minds of his peers, displaying his own independence of thought and belief. This form of journal stands as a stimulus to this kind of individual action in the region where it is placed.**

After more than half a century of continuous publication this journal has made a number of changes in appearance but none in its purposes. One of them is to provide the medium of communication its first editor, Clarence A. Smith, had in mind when he wrote the first editorial. Its pages are open to those who will make the effort to use them. •

Components

Not many members of the American Medical Association realize the extent of activities of the world's greatest medical organization or the component parts through which it now functions. Each of the following entities has specific duties and renders specific service:

Bureau of Health Education
Bureau of Medical Economic Research
Committee on Legislation
Council on Constitution and Bylaws
Council on Industrial Health
Council on Medical Education and Hospitals
Council on Medical Service
Council on Mental Health
Council on National Defense
Council on Rural Health
Council on Scientific Assembly
Department of Public Relations
Division of Councils of Therapy and Research
Council on Drugs
Council on Foods and Nutrition
Council on Medical Physics
Bureau of Investigation
Chemical Laboratory
General Manager's Office
Law Department
Judicial Council
Records and Circulation Department
Scientific Publications & Library
Today's Health
Washington Office

Those who wish to know more about the duties and services of these components may address inquiry to this journal. Information is available or will be obtained. •

New Secretary of Health, Education and Welfare

Government management and education have been the fields of interest of Mr. Arthur S. Flemming, who will replace Mr. Marion B. Folsom as Secretary of HEW. Secretary Folsom has resigned because of his health and will relinquish the office in July or August. He assumed the post in August 1955.

Mr. Flemming served nine years on the Civil Service Commission under President Franklin Roosevelt. During the Korean War he served in the Office of Defense Mobilization under President Truman. He was head of ODM from 1953 to 1957. Before inauguration, President Eisenhower named Mr. Flemming to a three man committee on government reorganization which committee is still active. Between periods of government service, he held posts at American University and at Ohio Wesleyan. He was first lay president of the latter school.

Reports indicate that he is an organization man who prefers to avoid controversy but works best as a member of a group. Friends rate him high as an authority on government and consider his ability outstanding. He is a believer in modern Republicanism and a staunch defender of administration policy. •



routine checks verify clinical accuracy

Every lot of 'Tes-Tape' (Urine Sugar Analysis Paper, Lilly) is subjected to a panel of ten persons at the Lilly Research Laboratories who are unfamiliar with the use of 'Tes-Tape.' Each panel member examines twenty-five urine specimens containing different concentrations of glucose. When last computed, the average accuracy of the observations at the designated levels was as follows:

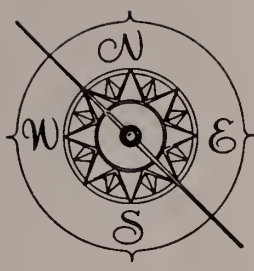
Glucose Concentration	Accuracy
2 percent	98.6 percent
0.5 percent	88.9 percent
0.25 percent	90.3 percent
0.1 percent	95.6 percent
0 percent	100 percent

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ORIGINAL ARTICLES

Uterine Cancer

Advances and Unsolved Problems in Treatment

JOHN STALLWORTHY, F.R.C.S., F.A.C.S. (HON.)
OXFORD, ENGLAND

The best is not good enough! Nowhere in medicine is this working principle more necessary than in the treatment of cancer. Failure to accept it has arrested progress, and on occasions divided with bitterness those who should have united in a common cause as is illustrated by the history of the therapeutic attack on uterine carcinoma. Fortunately the combined skills of the family doctor, the cytologist, the pathologist, the surgeon and the radiotherapist are now being used as never before in a concerted attack on pelvic malignant disease, and the results achieved in a relatively short time are encouraging.

Historic Background

The woman with cervical carcinoma had little hope of survival until 60 years ago. Growths were cauterised, cervices amputated, and uteri removed by both the vaginal and abdominal routes, but these heroic procedures were reserved for the few. Fraught with grave dangers they offered little chance of cure. It was recognized that cervical growths metastasised to pelvic glands and that survival of the primary hysterectomy (a rare event in the early series) was followed too often by recurrent disease. As early as 1787 a Gottingen professor proposed abdominal hysterectomy for uterine cancer and in 1825 Langendeck performed an unsuccessful operation. The year Roentgen discovered x-rays in 1895, Clark[1] at Johns Hopkins described an extended hysterectomy with removal of lymph nodes, while in Vienna, Wertheim was working on the same idea. On 16 November 1898, an historic date, Wertheim performed his first radical hysterectomy with removal of the glands and gave new hope to women with cervical cancer. His operation, with modifications, is today the most widely employed surgical technique in the treatment of this disease. Its justification was that it attempted to eradicate both the primary growth and the glands which experience had shown were commonly involved. Wertheim found nodal deposits in 25 per cent of his cases. This important fact concerning the reason for the operation should not be forgotten either when reviewing the past or when planning the future.

In the same year, 1898, Marie and Pierre Curie announced the radioactivity of pitchblende and heralded a momentous new era. Several years later the action of radiation on living tissue was realised following the famous accidental burn of Becquerel in 1901. Madame Curie isolated radium in 1902 and that year Cleaves[2] recorded a case of advanced cervical carcinoma treated with dramatic effect by 1 Gm. of radium bro-

Sommer Memorial Lecture presented at the 43rd Annual Meeting of the University of Oregon Medical School Alumni Association, Portland, Oregon, April 16, 1958.

mide. Early workers in America to record encouraging results included Morton,[3] Robert Abbe,[4,5] and Truman Abbe.[6] Lacassagne[7] and his associates explored new techniques in France, Janeway[8] and others in America, Forsell and Heyman[9] in Sweden, and in Germany, Kroenig[10] was using mesothorium. From 1898 Wertheim persisted in his surgical attempt to cure the disease. In 1913 the fifteenth convention of the German Gynecological Society at Halle included a discussion on radiation therapy. Wertheim was scheduled to speak on his results but after impressive papers had been read on mesothorium and radium, Doderlein tapped Wertheim on the shoulder and said, "My dear Wertheim, you are an historic personality, your operation will not be made any longer." It is reported that Wertheim was also impressed and cancelled his lecture.

Unfortunately, events did not justify the early claims made for radiation. One reason for this was the incidence of gland deposits and the fact that available techniques, apart from surgery, could do little for them.

The Wertheim Procedure

It was natural, therefore, that Wertheim should rely on surgery. His results are indicated in table 1. Reduction of primary mortality and

TABLE 1. CARCINOMA OF CERVIX

Surgery
Wertheim

Number of cases	Operability rate	Primary Mortality	5 Year "Cures"
1st series (1898-1916)	49%	19%	18.6%
2nd series (1916-23)	48%	13%	26.9%

increased rate of five year cures in the second series is impressive when we remember the years of war and post-war poverty during which these operations were performed. Advocates of radiation, of whom there were increasing numbers, were at times actively hostile to the surgeon and spoke of "butchery." In assessing the contribution Wertheim made, it should be remembered that he restored many women to health long before the first cures at Radiumhemmet, Stockholm, in 1911. The early terrifying primary mortality would have daunted less courageous men but when the exponents of radiation attacked this, as they continued to do through the years, they forgot or ignored the fact that Wertheim offered a cure to his early patients which was not otherwise available. The price to be paid was the danger of operative death, and postoperative fistulae, but the alternative of cancerous fistulae, pain, and misery was even more terrible. As Sir William Osler said, "What shall not be forgiven to the men who, as a direct outcome of the very operative details that have received the bitterest criticism, are saving lives that otherwise would have inevitably been lost. It has not always been professional encouragement that has supported them, but humanity owes a great debt of gratitude—a debt too great to pay, too great even to acknowledge."

In an effort to reduce the operative mortality, Wertheim's colleague Schauta perfected his extended vaginal operation. His results were most encouraging, with a higher operability rate and lower mortality. Amreich, with increasing experience, greatly extended the scope of the operation and, although his mortality rose in his later series, it will be noted that the overall salvage was greatly increased in that his operability rate rose from 41 to 73 per cent (table 2). The

TABLE 2. CARCINOMA OF CERVIX

Vaginal Surgery.

Surgeon	Operability rate	Primary Mortality	5 Year "Cures"
Schauta-Peham	54.7%	6.6%	26%
Amreich 1st series (1936-39)	41.7%	8%	36.1%
Amreich 2nd series (1939-43)	73.9%	14%	34.1%

fundamental weakness of the operation remained. As an ultimate attack on cervical cancer it was unsatisfactory in that, unlike the Wertheim technique, it ignored the glands.

Other workers, notably Werner in Vienna, Lockyer, Comyns Berkeley, and perhaps greatest of all British surgeons. Bonney in England, and later Meigs in this country, practised the Wertheim procedure with improving results, as shown in table 3. It should be remembered that

TABLE 3. CARCINOMA OF CERVIX

Wertheim Technique.

Surgeon	Operability rate	Primary Mortality	5 Year "Cures"
Werner (1939-40)	78.5%	7.9%	46%
Werner (1940-50)	76.3%	6%	48%
Bonney (500 cases)	63%	14%	40%

Bonney's large series was completed in the 1930's and included all those early cases treated when

anaesthetic facilities and pre- and postoperative care were not what they are today. I was resident at Chelsea Hospital for Women in 1936, the year Bonney performed his five hundredth Wertheim. Postoperative intravenous infusion for these cases was introduced at that late stage as a routine procedure by my colleague, John Howkins, now at St. Bartholomew's Hospital, and myself. Bonney's influence extended to the Commonwealth where Foreman and Thring in Sydney maintained the surgical attack and trained, among others, Schlink, to whom reference will be made later.

Treatment by Radiotherapy

After the 1913 Congress at Halle, radiotherapy became the generally accepted method of treatment. It was possible for surgeons, with or without training in the use of the new material, to purchase radium needles and use them as they wished. Two opposing schools of surgery and radiotherapy rapidly developed and the second was the stronger and grew rapidly. You may ask what this historic review has to do with advances in the treatment of uterine cancer. It has a great deal. There are occasions when past experience of success and failure can pave the way for dramatic contributions, and an outstanding example of this is the increasing rapprochement between radiotherapists and surgeons, after years of antagonism.

While a minority of surgical giants were operating on all possible cases, a multitude of inadequately experienced practitioners throughout the world were applying radium needles believing, as it was then falsely taught, that this was a safe procedure with no primary mortality and with results equal to the best surgery could offer. Meanwhile in selected, well equipped clinics, the giants of radiotherapy were developing. These men, with ever improving equipment and rapidly expanding knowledge, were treating cancer of all forms. It was unfortunate, but perhaps natural, that when reference was made to the part surgery could play, only the results of the Bonneys and Werners of this world were quoted. Their work revealed the best that surgery at that time could accomplish, but gave no indication of the bad results obtained by relatively untrained and adventuresome surgeons working in isolation away from the limelight. Similarly, when radiotherapy was discussed the results mentioned were not those of the thousands of individuals with a few radium needles or of small, poorly equipped clinics, but of Radiumhemmet, the Paris School, Manchester, the Marie Curie Hospital, or of pioneers like Kelly and Burnham, Schmitz and Janeway,[8] to mention but some of your own distinguished contributors. A study of the international reports reveals the wide divergence of results achieved in different clinics. As seen in figure 1, with one exception there has been an encouraging and progressive improvement in the overall collected world results during recent years, with a recovery rate in the latest five year series of 39.8 per cent. Compared with the position in 1898, when the first Wertheim was performed, the results are good, but there is no room for complacency when one remembers the 60 per cent who still die in the best centers, the 70 to 75 per cent who die in many teaching centers and the probable mortality in thousands of units which never publish results.

Four Questions

As we consider these things we are confronted by four direct questions which for too long have remained unanswered:

1. Why are results so much better in some units than in others?
2. What are the causes of death in treated cases?
3. Can the incidence of these causes be reduced or eliminated?
4. What should be the plan for the future?

Question 1:

The first question is easily answered. The large center with highly skilled specialist staff, equipment to match, and an adequate records and follow-up system, will almost invariably achieve better results than the small unit with limited experience and facilities. In Great Britain, units handling less than 750 cancer cases of all varieties annually will probably cease to exist and the more expensive and efficient apparatus will be concentrated in clinics handling at least double this number.

Another factor essential to improved results is to increase the proportion of early cases. The international report records an average 63 per cent five year recovery rate with stage 1 growths as opposed to 8 per cent in stage 4. Thanks to the excellent pioneer work done in America, increasing use of vaginal cytology helps the detection of early cancer in two ways. It selects the suspect patient for further investigation and

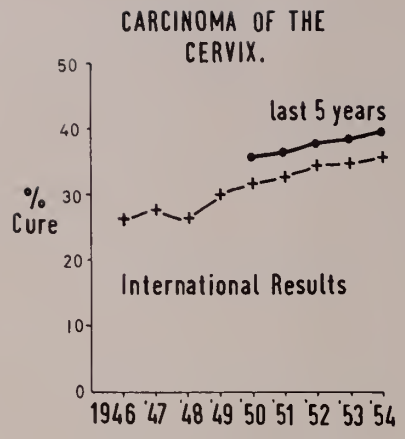


Fig. 1. Illustrating steady improvement in world results.

makes all concerned, medical and lay public, more cervix conscious. Centers associated with educational programs and screening facilities will handle more earily cases and have better overall results.

Question 2:

There are several reasons why 60 to 70 per cent of all treated cases die within five years. The minority have cancer so advanced that cure is improbable or if it occurs the renal tract is already so disorganized that uremia is a constant hazard. Some have growths that do not respond to radiation or are highly malignant and rapidly and widely disseminate. A few die as a result of treatment, both surgical and radiation. Others respond but later suffer recurrence locally, or new tumors develop in an organ which has already demonstrated its malignant potential. Many are killed, often years later, by glandular or other metatases.

Question 3:

Attre working in different countries in the early thirties in three clinics using radium as the sole attack on cervical cancer, I was worried by the facts just recorded. In 1936-37 it was my privilege at Chelsea Hospital for Women to learn the Wertheim technique from such masters as Bonney, Rivett, Read and others, but it was obvious that although glands were involved, even in early cases the Wertheim operation was not the ultimate answer to the problem. The best results were comparable to the best by radiation, but were not good enough. It seemed possible that the hope for the future might lie in a combination of both methods, full radiation followed by the Bonney-Wertheim operation. This appeared to offer as a justifiable experiment the chance of reducing the number of deaths from resistant tumors, from recurrent or new uterine cancer, and from gland metastases.

The most efficient block dissection of glands anywhere in the body is an unsatisfactory procedure when one imagines microscopic malignant cells remaining in the field in invisible or divided lymphatics, but it was thought possible that deep therapy inadequate to sterilize pelvic wall glands might be lethal to scattered cells. It was therefore planned to give deep therapy postoperatively if glands were involved. At this time I was unaware that Schlink of Sydney, to whom I have already referred, had embarked on a similar program some years before. His excellent work is now widely known. It has been my privilege to visit Sydney and work as a visiting professor in his clinic and I can vouch for the thoroughness of his treatment, for the excellence of his follow-up system and the accuracy of his records.

In 1937 and 1938, however, it was not easy to obtain support in Britain for the scheme outlined. Most schools were using radium. Those employing surgery criticised the wisdom of operating after extensive radiation. Permission to carry out this treatment was refused in a unit in which I then worked as an assistant, and not until later did the opportunity come of putting these ideas into practice. What the results will be in a series large enough to warrant the drawing of conclusions has yet to be decided, but much has been learned from experience to date.

In the first place, operative difficulties are not increased if the correct time interval following radiation is chosen. This has proved to be six weeks after the first application of radium. The immediate reaction appears to decrease after each application and the increased bleeding which was prophesied by many does not occur. Neither has postradiation fibrosis developed. It has been the exception and not the rule to require blood replacement during operation although a slowly running transfusion is a wise precaution. Two important practical points require empahsis: the first is that if blood is lost it must be replaced but with careful technique and spinal anesthesia, as advised by Bonney, hemorrhage should be minimal. The second point on an appreciation of which the life of the patient may depend, is that excessive transfus-

ion or infusion can be fatal. Nice judgment is often required to decide how much fluid is necessary and how fast it should be given.

Multiple fistulae predicted by the sceptics have not occurred and no ureter has necrosed or been cut in the series. Two patients developed delayed bladder and rectal necrosis with fistulae formation and in each case it was found that the maximum agreed radiation dose had been exceeded prior to operation. The fistulae were closed vaginally in both cases. One other patient developed delayed small vesico-vaginal fistula which was successfully closed.

Figure 2 illustrates the extent of the tissue removed with a stage 2 carcinoma involving the vaginal vault. There is no technical difficulty



Fig. 2. Postradiation Wertheim specimen with vagina opened to reveal healed cervix.

in removing all the vagina when necessary. Early in the series, patients for operation were selected carefully, but in recent years the procedure has become a routine on all patients under 70 considered operable after the second application of radium. The operability rate last year was 60 per cent of all cases seen and 71 per cent of all patients under 70.* There has been no operative or postoperative death in the series. There has, however, been one postoperative death from embolism in a much smaller series of postradiation Wertheims for carcinoma corpus et endocervicitis. The number of carcinoma of cervix patients treated in this way is 122 to date.

Radium and Surgery Used Together

An interesting feature, the significance of which we do not as yet understand, is the reduced incidence of gland involvement since radiation has been controlled by a skilled radiotherapist. Previously the surgeon applied the radium, now both surgeon and radiotherapist work together in the theater. Dr. Ellis, Director of the Radiotherapy Department at Oxford, uses a perspex spreader applicator of his own design (fig. 3) which holds the radium in the distended

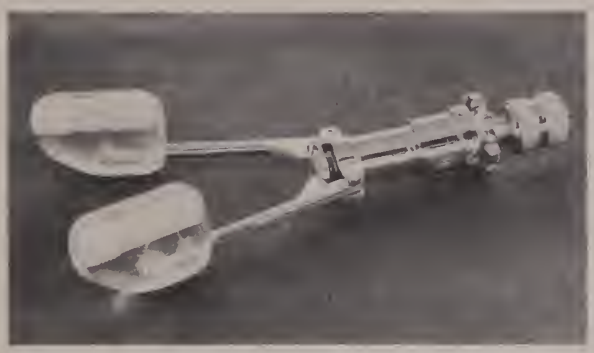


Fig. 3. Perspex vaginal spreader for radium application.

lateral fornix as near the lateral pelvic wall as possible. Only 3 of the last 34 patients had gland metastases. Currie reported 181 operations following a reduced dose of pre-operative radium in a total of 214 operations with only 3 deaths, all from emboli.[11] Glands were involved in 30 per cent and cancer cells were found in the removed cervix in 78 per cent. After full radiation we are finding glands in approximately 10 per cent and residual cervical cancer cells are seldom seen. The time interval and heavier radiation explain the decreased incidence of residual malignant cells and it is attractive to believe that they also have some effect on gland involvement, but this has still to be proven.

An important point illustrated by Currie's excellent results, those reported on selected cases by Meigs, the Sydney series of Schlink and the Oxford figures, is that careful teamwork can produce results considered impossible 20 years ago. Fletcher-Shaw[12] addressed the clinical Congress of the American College of Surgeons at Philadelphia on the subject of radium and hysterectomy in 1936. He reported his experience of 154 operations with a primary mortality of 21.4 per cent as opposed to 2.1 per cent following radium, stressed the need for surgical experience for those performing the operation, and announced that as a previously strong advocate of surgery, he had now abandoned it. The best that could be expected by operating on selected early cases was in his opinion a 40 per cent five year survival rate. In the subsequent

*The percentage of patients operated upon will continue to rise with progressive earlier diagnosis due to cytologic screening, colposcopic studies, and better education of the public and profession alike.

discussion, Floyd Keene of Philadelphia concurred with Shaw's conclusions and stated that no hysterectomy for cervical cancer had been performed in his clinic for 15 years.

Currie's results of 79 per cent five and 77 per cent ten year survival in selected cases and the experience of Schlink, Meigs and at Oxford, give ample proof that these views and those generally held today are unnecessarily gloomy. It will be said that these results are from selected clinics and not generally applicable, so let me return to the words of Keene when he discussed Shaw's paper 22 years ago, "Irrespective of the method employed and under the most favorable circumstances as regards technical skill and equipment not more than 25 per cent of patients can be saved. With such deplorable results it is evident that the treatment of cervical cancer is not a closed book, but an issue requiring a receptive mind, willing to give serious consideration to any procedure which is based upon sound scientific principles." The prognosis has improved 100 per cent since those words were spoken, but the need for an open mind is as valid today as it was then.

Before a brief concluding glimpse into the future, passing reference must be made to the subject of corpus carcinoma. Just as there has been undue pessimism about the results of treatment of cervical cancer, there has been unwarranted optimism concerning carcinoma of the corpus. The best five year results assessed on all patients seen have been approximately 60 per cent, while many clinics report 40 to 50 per cent. It is now more widely recognized that even in cancer confined to the corpus the pelvic glands are involved in over 10 per cent, and with extension to the endo-cervix the incidence is higher. In face of these facts the usually adopted surgical procedure of total hysterectomy is almost as inadequate as the same operation would be for cancer of the cervix. The extended operation needs more experience and better teamwork and as with carcinoma of the cervix, both radium and surgery have an important role. To what extent each should contribute has still to be decided.

Question 4:

So from the heroic efforts of the early pioneers at the end of the last century, we have in 60 years reached the stage when the future can be viewed with greater confidence. The days of conventional deep-ray therapy are numbered. Mega voltage units have become accepted weapons of great promise. Cobalt units and linear accelerators have fulfilled early expectations and must now prove their worth in the treatment of uterine cancer, but they are expensive and require skilled teams for their handling. This means that the patient with a malignant uterus must go to the center equipped to treat it. If this concept is accepted, as it should be for the surgical as well as for the radiotherapeutic attack, and above all if both surgeons and radiotherapists work in harmony and not as defenders of a vested interest, the prognosis for patients with uterine cancer—be it of the body, the cervix, or both—should exceed all present expectations within the next 10 years. By that time the elusive riddle of cancer may be nearer solution and both surgery and radiotherapy be relegated to a subservient role.

A half century of progress gives grounds for encouragement, but not for complacency. Failures should promote humility and help bring fulfillment of the old promise that "the meek shall inherit the earth." •

85 Banbury Road.

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Poliomyelitis and Polio-Like Diseases Differentiated Through Virus Laboratory Studies

Report of the Washington State Polio Surveillance Study—1956

W. R. Giedt, M.D., D. N. Wysham, M.D. and Jack Allard, B.S., seattle, washington

Virus laboratory studies yield much information on paralytic and nonparalytic poliomyelitis. The latter term is erroneous and should be replaced by the diagnosis of aseptic meningitis.

Recovery and identification of the Coxsackie viruses from stool specimens in 1947, and later the ECHO (entero-cytopathogenic-human-oprhan) viruses, gave increased support to the suspicion that many cases of illness diagnosed heretofore as non-paralytic poliomyelitis were actually diseases produced by viruses other than poliovirus. Since the introduction of the use of vaccine against poliomyelitis is still so recent, it remains necessary to accumulate accurate observations as to its efficacy, duration of protection, proper dosage and the like. With these problems in mind, an attempt was made to determine how frequently poliovirus could be recovered from the stools of patients with illnesses suggestive of poliomyelitis, and, conversely, how frequently non-polio viruses could be isolated from such patients if poliovirus was not recovered.

Selection of Cases for Study

The subjects of this study consist of 305 patients from all parts of the state who had illnesses during 1956 in which poliomyelitis was given serious consideration in the differential diagnosis. Included among these are 192 patients whose illnesses were reported officially to the health department as acute poliomyelitis.

Diagnostic Criteria

For the purpose of this study, the clinical descriptions outlined in the National Foundation for Infantile Paralysis booklet "Definitive and Differential Diagnosis of Poliomyelitis" were used as a guide to diagnosis and cases were classified according to the following criteria:

A. Non Paralytic Poliomyelitis

General symptoms of poliomyelitis, such as fever, headache, nausea, without paralysis but including spinal or nuchal rigidity, plus

(1) abnormal spinal fluid (white cells or protein) (more than 10 white cells per cubic centimeter, or protein greater than 50 mg. per cent or both)

(2) isolation of poliovirus from the stool.

B. Paralytic Poliomyelitis

The diagnosis of paralytic poliomyelitis was accepted when a patient had recent onset of definite weakness or paralysis persisting beyond the period of acute illness, and in addition one or more of the following:

(1) An acute illness, with fever and spinal or nuchal rigidity (or cranial nerve involvement).

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Mr. Allard is Head of Virus Diagnostic Unit, Washington State Department of Health.

This report is presented as a matter of interest to the practising physicians, and hospital and health department personnel who participated in the study by collecting and supplying the information and laboratory specimens required. The study could not have been made without their contribution for which the authors wish to express their grateful appreciation.

(2) Abnormal spinal fluid (white cells or protein or both).
(3) Isolation of poliovirus from the stool.

C. Aseptic Meningitis Syndrome (after Wallgren)
(1) Acute onset with signs and symptoms of meningeal irritation: Headache, fever, stiff neck, nausea or vomiting (occasionally).
(2) Spinal fluid changes: Increased cell count or protein concentration or both.
(3) Cultures of spinal fluid negative for bacteria.
(4) Short duration without secondary complications (no paralysis or residual weakness).
(5) Absence of parameningeal disease (otitis, sinusitis, trauma).
(6) Absence of systemic infection complicated by secondary meningitis (tuberculosis, typhoid, leptospirosis, syphilis).

The following is a list of viral agents capable of producing the aseptic meningitis syndrome:

Most Commonly Occurring
Poliovirus
Mumps
Coxsackie virus
ECHO virus (enteric-cytopathogenic-human-orphan virus)

Less Common
Western and Eastern equine encephalitis
St. Louis encephalitis
Herpes simplex and zoster viruses
Infectious hepatitis
Lymphogranuloma venereum — Psittacosis (rare)
Infectious mononucleosis (virus?)
Lymphocytic choriomeningitis (not yet identified in state of Washington)

Other conditions occasionally complicated by meningo-encephalitis
Measles
German measles
Smallpox
Vaccinia
Chickenpox

Laboratory Specimens

An attempt was made to obtain feces specimens from each patient during the first week of illness, since it has been demonstrated that the best opportunity to recover poliovirus from stools occurs during this period. Unfortunately, specimens were not always obtained within that time limit for various reasons, and obtaining specimens was delayed up to a month in one instance. The specimens were shipped through the mails, unrefrigerated and a few were in the mail for as long as 6 to 10 days.

When poliovirus was recovered, it was usually isolated from the first specimen submitted, making it unnecessary to examine the second specimen. In 24 cases in which no virus was recovered, two specimens from 6 of the patients were tested, but the second specimens also yielded no virus.

It was suspected that the delay in obtaining specimens or the length of time specimens were in transit were factors which might be unfavor-

Table 1. Elapsed Time Between Onset, Collection and Processing of Stool Specimens from Cases of Paralytic Poliomyelitis.

	Poliovirus isolated (29 cases)		Poliovirus not isolated (23 cases)	
	Median	Range	Median	Range
Time elapsed between onset and collection of specimen	7 days	2-19 days	5 days	1-30 days
Time between collection of specimen and receipt in laboratory	1 day	0-11 days (42% of specimens were collected after first 7 days of illness)	1 day	0-6 days (31% of specimens were collected after first 7 days of illness)
Time between receipt of specimen in laboratory and processing	11 days	0-90+ days (21% of specimens were enroute for more than 2 days)	9 days	1-90+ days (14% of specimens were enroute for more than 2 days)

able to the yield of virus in some specimens. A comparison of these factors was made between 29 cases of paralytic poliomyelitis from which poliovirus was recovered, and 23 cases of paralytic poliomyelitis from which poliovirus was not recovered. (See table 1.) The comparison did not confirm this suspicion. It therefore appears necessary to search elsewhere for the explanation of failure to recover poliovirus from 46 per cent of the paralytic cases tested.

Laboratory Procedures

Since virus diagnostic laboratory service is relatively new to most physicians, it may be of interest to outline briefly the procedures involved in examination of specimens.

1. *Stool Specimens*—Upon receipt of specimens in the laboratory, they were stored in a refrigerator at -15 F. until ready for processing.

Processing consisted of preparing a 10 per cent suspension of the fecal matter in tap water, which was then centrifuged at high speed under refrigeration. The supernatant was then treated with antibiotics to eliminate any residual bacterial or mycotic contamination. Such treated supernatants were then inoculated into tubed monolayer cultures of monkey kidney cells.

If a cytopathogenic effect was produced, tissue culture fluid from the original cultures were treated with type specific antisera against each of the three types of poliovirus, and then inoculated into fresh monkey kidney cell cultures. The presence of any type of poliovirus was confirmed if the cytopathogenic agent was neutralized by one of the three type specific polio antisera.

If the cytopathogenic agent was not neutralized by the polio antisera, it was assumed that the agent was a nonpolio virus. To determine whether the agent might be a Coxsackie or ECHO virus, infected tissue culture fluid was then inoculated into 1 day old suckling mice. If the agent in the fluid was capable of killing or paralyzing the mice, it was considered to be a Coxsackie virus. If the infant mice survived, the agent was presumed to be a virus of the ECHO group.

To determine the precise type of Coxsackie or ECHO virus that had been isolated, infected tissue culture fluids were frozen and shipped for typing to the Public Health Service Viral and Rickettsial Laboratories at Montgomery, Alabama, by air mail. The procedures necessary to determine specific antigenic serotypes of these viruses is a long, tedious and costly operation, and we are greatly indebted to the Public Health Service for performing this service for us.

2. *Blood Specimens*—An attempt was made to obtain acute phase blood specimens from all patients in order to be able to make comparisons with convalescent phase specimens, particularly when it was desirable to rule out such diseases as mumps meningitis or arthropod-borne encephalitis. Also, it was hoped that means could be found to demonstrate rises in antibody titre against the various viruses isolated. Unfortunately it was not possible to carry on the latter type of study.

Findings of Study

Changes in Diagnostic Classification.

By application of the diagnostic criteria established for this study, a shifting of diagnostic categories was produced as noted in table 2.

Table 2.

Original Clinical Diagnosis	Cases	%	Final Diagnostic Classification Cases	%
Suspect Polio	65	21.5	0	0
Non-Paralytic Polio	101	32.8	8	2.6
Paralytic Polio	95	30.1	91	30.0
Aseptic Meningitis	25	8.2	177	58.0
Other Diseases	19	6.2	29	9.4
Totals	305	100.0	305	100.0

It may be seen that the diagnosis of cases originally called suspect poliomyelitis were eventually changed to fall into one of the other four categories; similar shifts occurred in all orignal diagnostic categories. As would be expected, the diagnoses of those cases originally called paralytic poliomyelitis remained quite constant, the most notable shifts being away from the diagnosis of non-paralytic poliomyelitis, and the increase in the proportion of cases finally classified as aseptic meningitis syndrome.

Isolation of Viruses According to Final Diagnostic Classification.

Laboratory specimens were not obtained from 55 of the 305 patients included in this study. The final diagnosis of 37 of these patients was paralytic poliomyelitis, 17 were classified as

aseptic meningitis and 1 case was placed in the other diseases category.

For the purpose of this study, non-paralytic poliomyelitis includes only those cases which have manifested the usual non-paralytic symptoms plus isolation of poliovirus. It is quite possible that there were cases of true non-paralytic polio not included here because no poliovirus was recovered from the patient. Such cases would be classified as aseptic meningitis syndrome.

Table 3 illustrates the recovery of viruses from the 250 patients from whom specimens were obtained and examined. Poliovirus was recovered from only 14.8 per cent of these patients; a non-poliovirus was recovered from 35.2 per cent of them, and no virus was recovered from 50 per cent.

Poliovirus was recovered from only 53.7 per cent of the patients whose final diagnosis was paralytic poliomyelitis. No virus was isolated from 42.6 per cent of the patients with this diagnosis. It is assumed that the paralytic disease in these cases was caused by poliovirus infection. Unfortunately, antibody studies were not carried out to determine whether the patients in this group actually exhibited polio antibody titres which would support this assumption.

Specific Viruses Isolated.

Table 4 presents the frequencies and specific types of viruses isolated according to the final diagnosis. The predominant poliovirus was Type I; no isolations of Type II were made, and Type III poliovirus was recovered from only 3 patients. It is of note that in two instances of paralytic disease, non-polioviruses were recovered—ECHO Type 6 in one case and ECHO Type 14 in another.

We have been impressed by the fact that in no instance was more than one type of virus isolated from an individual specimen or from several specimens from the same patient. It seems reasonable to expect that some persons would be harboring more than one type of virus. Our experience in this regard appears to be the same as in other parts of the United States. This circumstance may be due to one of several

Table 3.

Final Diagnosis	Total	Poliovirus Recovered		Non-poliovirus Recovered		No Virus Recovered	
		Cases	%	Cases	%	Cases	%
Non-Paralytic Polio	8	8	100.0	0	0	0	0
Paralytic Polio	54	29	53.7	2	3.7	23	42.6
Aseptic Meningitis	160	0	—	83	51.9	77	48.1
Other Diseases	28	0	—	3	10.8	25	89.2
Totals	250	37	14.8	88	35.2	125	50.0

Table 4. Frequency and Type of Virus Isolation.

Virus Isolated	Final Diagnosis: Paralytic Palia	Non-Paralytic Palia	Aseptic Meningitis	Other
Poliovirus Type I	28	6	0	0
Poliovirus Type II	0	0	0	0
Poliovirus Type III	1	2	0	0
Coxsackie A-9	0	0	5	0
Coxsackie B-1	0	0	1	0
Coxsackie B-2	0	0	3	0
Coxsackie B-4	0	0	8	0
Coxsackie B-5	0	0	47	1
ECHO 4	0	0	2	0
ECHO 6	1	0	4	0
ECHO 7	0	0	1	0
ECHO 14	1	0	0	0
Adeno III	0	0	0	1
Unidentified	0	0	8	1
Totals	Paralytic Palia	Non-Paralytic Palia	Aseptic Meningitis	Other
	Polio	Polio	Cox A9-5	Cox B - 1
	Type I -28	Type I -6	Cox B-59	Adeno III-1
	Type III-1	Type III-2	ECHO - 7	Unid. - 1
	ECHO 6 -1		Unid. - 8	
	ECHO 14-1			

possible causes; our laboratory methods may not be sufficiently sensitive, or the so-called "interference" phenomenon may be operative. At any rate, this situation needs further study.

Seasonal Distribution of Cases.

From table 5 and figures 1 and 2 it may be seen that both poliomyelitis and the aseptic meningitis syndrome caused by other viruses

Table 5. Incidence by Month of Onset—Final Diagnosis.

Month	Poliomyelitis	Aseptic Meningitis	Total
January	10	1	11
February	4	4	8
March	1	2	3
April	1	3	4
May	3	1	4
June	5	3	8
July	10	18	28
August	31	57	88
September	17	37	54
October	9	37	46
November	3	11	14
December	4	2	6
Totals	98	176	274

were prevalent during the same seasonal period. Both began to increase during June and both reached a seasonal peak during August. However, the incidence patterns were not identical. Poliovirus appeared to become prevalent earlier, while Coxsackie viruses appeared to persist at a much higher incidence following the seasonal peak. Thus, pre-seasonal cases are more apt to be due to poliovirus infection, while late seasonal cases are more apt to be due to non-poliovirus infections.

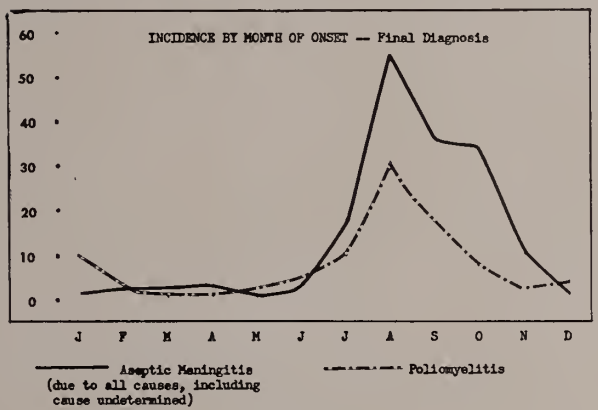


Fig. 1.

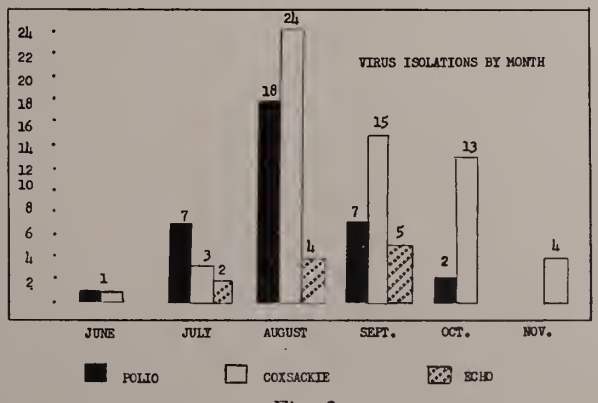


Fig. 2.

Geographic Distribution.

Table 6 illustrates the distribution of cases of poliomyelitis and aseptic meningitis by county.

Table 6. Geographic Distribution of Cases by County.

County	Aseptic Meningitis	Poliomyelitis	Total
Benton	5	3	8
Chelan	0	1	1
Clark	4	12	16
Columbia	1	0	1
Cowlitz	2	4	6
Grant	3	0	3
Grays Harbor	2	4	6
King	52	24	76
Kitsap	0	2	2
Klickitat	2	4	6
Kittitas	7	1	8
Lewis	19	6	25
Mason	1	1	2
Okanogan	1	1	2
Pierce	33	7	40
Skagit	0	1	1
Skamania	0	2	2
Snohomish	14	5	19
Spokane	8	8	16
Thurston	0	1	1
Walla Walla	1	2	3
Whatcom	5	2	7
Whitman	3	1	4
Yakima	14	6	20
Totals	177	98	275

There were outbreaks of aseptic meningitis in 12 counties with between 3 and 52 cases per outbreak. There were outbreaks of 3 or more cases of poliomyelitis in 11 counties. Outbreaks of 3 or more cases of both aseptic meningitis and poliomyelitis occurred in 8 counties.

Age Distribution.

The age distribution of cases of poliomyelitis and aseptic meningitis (table 7) differed consid-

Table 7. Age Group Incidence Variations Between Poliomyelitis and Aseptic Meningitis.

Age Group Years	Total	Poliomyelitis Cases	Poliomyelitis %	Aseptic Meningitis Cases	Aseptic Meningitis %
0-2	23	15	19.0	8	5.0
3-5	42	16	20.2	26	16.3
6-14	68	13	16.4	55	34.6
15-24	52	17	21.5	35	22.0
25 thru 50	53	18	22.7	35	22.0
Totals	238	79		159	

erably up to the age of 15, but thereafter the pattern was quite similar in both these disease categories. The incidence of poliomyelitis was much higher in the infant group (0 to 2 years) than the incidence of aseptic meningitis. Whereas the incidence of aseptic meningitis was highest in the school age group (6 to 14 years), the incidence of polio was lowest in this group. It is of interest that almost one half of the cases of poliomyelitis occurring in this group had received one or two inoculations of polio vaccine (10 of 22). No doubt a relatively large portion of the children in this age group had received protection against poliomyelitis, but not against aseptic meningitis due to some other virus.

Vaccination Against Poliomyelitis.

Eight poliomyelitis patients each received one inoculation of polio vaccine. Each of these developed paralytic polio. Eight patients each received two inoculations of vaccine; 6 of these developed paralytic polio and 2 of them developed non-paralytic polio. No cases of poliomyelitis occurred in any person who had received three inoculations of vaccine.

It is of interest to note that of the 16 patients who developed poliomyelitis following vaccination, the onset of 7 occurred within 1 to 7 days after the last inoculation; the onset of 2 cases occurred within 20 to 23 days after last inoculation and the onset of 7 cases occurred 2 or more months following last inoculation.

Of 17 persons in the age group 15 through 24 years who developed poliomyelitis, only 2 had received vaccine; one of these had received two inoculations and the other only one inoculation. Of 18 persons over the age of 25 years who developed poliomyelitis, only 1 had received vaccine, and this patient had received two inoculations. This information emphasizes the need for immunization of adults as well as children. See table 8.

Table 8. Vaccination of Patients Who Developed Poliomyelitis.

Clinical Type	Total Inoculations	Date Last Inoculation	Date Onset	Interval
Non-paralytic	2	8-3	8-9	6 days
" "	2	6-?	10-3	4 months
Paralytic polio	1	7-7	7-13	6 days
" "	1	5-25	7-15	2 months
" "	1	3-?	7-19	4 months
" "	1	7-7	7-21	7 days
" "	2	4-?	8-5	4 months
" "	2	7-25	8-14	20 days
" "	2	6-2	8-14	2 months
" "	1	8-11	8-15	4 days
" "	1	8-22	8-24	2 days
" "	1	8-30	9-4	5 days
" "	2	5-26	9-4	4 months
" "	2	2-56	9-12	7 months
" "	1	9-18	9-19	1 day
" "	2	11-29	12-22	23 days

"Other" Diseases.

Poliomyelitis must be differentiated from a wide variety of illnesses which are accompanied by symptoms common to both. In some instances the differentiation can be made by observation of the progress of the illness; however, in many instances a differentiation can be made only with the aid of the virus laboratory. The following is a list of diseases differentiated from poliomyelitis among the cases included in this study:

Final Diagnosis	*Cases*
Viral enteritis	3
Influenza	1
Mumps meningoencephalitis	5
Guillain-Barre syndrome	4
Chickenpox meningitis	1
Abscessed tooth	1
Serratus anterior palsy	1
TB meningitis	1
Trauma left hip	1
Rheumatic fever	1
Neuritis	1
Intestinal parasites	1
Abscess left hip	1
Viral hepatitis	1
Pleurodynia	1
Sickle-cell anemia	1
Fever, undetermined origin	4

Conclusion

A study of 305 patients with illnesses resembling paralytic or non-paralytic poliomyelitis is reported. The final diagnosis, as based on criteria established for this study, was changed in 50 per cent of the cases. The diagnosis of paralytic poliomyelitis remained fairly constant (only a 1.3 per cent shift).

Results of the study indicate that polio-like disease caused by viruses other than poliovirus occur during the same seasonal period and have been classified clinically as non-paralytic or suspect poliomyelitis. Through the use of the virus laboratory it is now possible to differentiate some of these diseases from poliomyelitis.

Of special interest was the finding of a non-poliovirus only in 2 cases of paralytic disease, indicating that other viruses may also be cap-

able of producing the clinical picture of paralytic poliomyelitis.

The findings of this study support the contention of the World Health Organization Expert Committee on Poliomyelitis that the disease category of non-paralytic poliomyelitis, so frequently used in the past, is a syndrome caused by infection with a variety of viruses and other agents, and that the use of the designation *non-paralytic poliomyelitis* should be dropped in favor of the more definitive term *aseptic meningitis* qualified by the designation of etiology as demonstrated, suspected or unknown.

In line with this thinking, the Washington State Board of Health has recently made the aseptic meningitis syndrome a reportable disease. •

The State of Washington Department of Health, Smith Tower (4) (Dr. Giedt).

New Legislation

Union Welfare Funds. Senator McClellan (D., Ark.) proposes to require the registration of labor unions and labor relations counsellors and the observance of minimum standards in bylaws of unions. Name and title of each person responsible for administration of any trust in which a union is interested, including health and welfare funds, would have to be supplied the Secretary of Labor, along with other pertinent information. The bill is S. *3618.*

Diabetes Grants. Senator Anderson (D., N.M.) in S. *3690* would authorize grants to state or local agencies, universities, hospitals and laboratories for projects pointing toward the detection and control of diabetes and for rehabilitating persons suffering from the disease.

Public Assistance. As an anti-recession measure, *H.R. 11678* by Rep. O'Neill (D., Mass.) would set up a fifth category of public assistance recipients for those needy persons not now eligible. General assistance is defined as money payments for medical care "or any type of remedial care . . . in behalf of needy individuals or families." . . . Rep. McCormack (D., Mass.) under *H.R. 11703* would eliminate the 1956 restrictions but not disturb the increases in medical care payments. Prior to the 1956 changes, states were permitted to include money for medical care in their direct payments to recipients or to provide the care by making payments directly to the vendors of the medical services. Now states operate either under the old arrangement or a new system of direct vendor payments with federal participation limited to $3 per adult and $1.50 per child recipient . . . S. *3685* by Senator Yarborough (D., Texas) would (1) increase federal participation in the four public assistance programs, (2) increase U. S. payments for medical care to $5.33 per month for each adult and $2.67 for each child and (3) provide for the U. S. to pay half the cost of administering these activities.

Hill-Burton. Senator Langer (R., N.D.) would amend the Hill-Burton hospital construction program to extend eligibility to nonprofit corporations or associations that have a contractual affiliation with a nonprofit hospital. The number is S. *3699.*

Aid to Education. Rep. Knutson (D., Minn.) is urging enactment of a mammoth grants bill calling for expenditure of $100 billion over 10 years for grants and loans to stimulate primary and secondary school construction, improve teaching and set up a nationwide school health program. The school health program would cost $2 billion over the 10 years. Half the health fund would be apportioned among states on the basis of the number of school-age children in each state, and the other half would go as grants to finance research in child health and to establish pilot programs for detection, control and treatment of children with health problems. The health section of the program would provide (a) medical, dental and mental health services to school children, (b) establish school health clinics and mobile clinics for rural areas, and (c) initiate programs to combat health problems prevalent among children. The number is *H.R. 11960.*

Veterans Benefits. In *H.R. 12001,* Rep. Siler (R., Ky.) would authorize emergency outpatient treatment by Veterans Administration for any veteran, whether the condition is service-connected or not, if the veteran is receiving a pension or compensation. Also, VA would be authorized to reimburse any such veteran for emergency outpatient expenses incurred at a non-VA hospital.

from AMA Washington Letter

Newer Concepts in Surgery for Carcinoma of the Colon

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SPOKANE, WASHINGTON

Improved application of known principles usually brings more progress than development of new theories. Resection of the tumor and adjacent lymphatic tissue can cure cancer of the colon. Higher percentage of cures can be obtained by more accurate knowledge of the possibilities of spread and more care in preventing dissemination of cancer cells at the time of surgery.

Surgery for cancer of the colon may well be entering a new era in which fatalistic acceptance of past survival rates will yield to markedly improved results. Advances in this field of surgery have been rapid, and have been little publicized. These advances have been along two broad fronts: the area of lymphatic resection, and quarantine of the tumor during surgery. This paper will outline significant contributions of the past decade, and project from such information a scheme for surgery in cancer of the colon.

At the outset, there are those who would criticize any variation in the surgical approach to cancer until long-term reports on percentage survival rates have been filed in the literature. In the meanwhile, lives may be lost while such data accumulate. The innovations to be here reported can be purchased with a slightly prolonged operative time and, with selection of cases, need not adversely affect operative mortality.

Lymphatic Resection

How much tissue should be excised? This question can be given a reasonable answer if one first considers how and where lymphatic metastases occur. Such metastases occur microscopically within the bowel wall, and they also occur by emboli of tumor cells to nodes near the tumor or at the base of the mesentery.

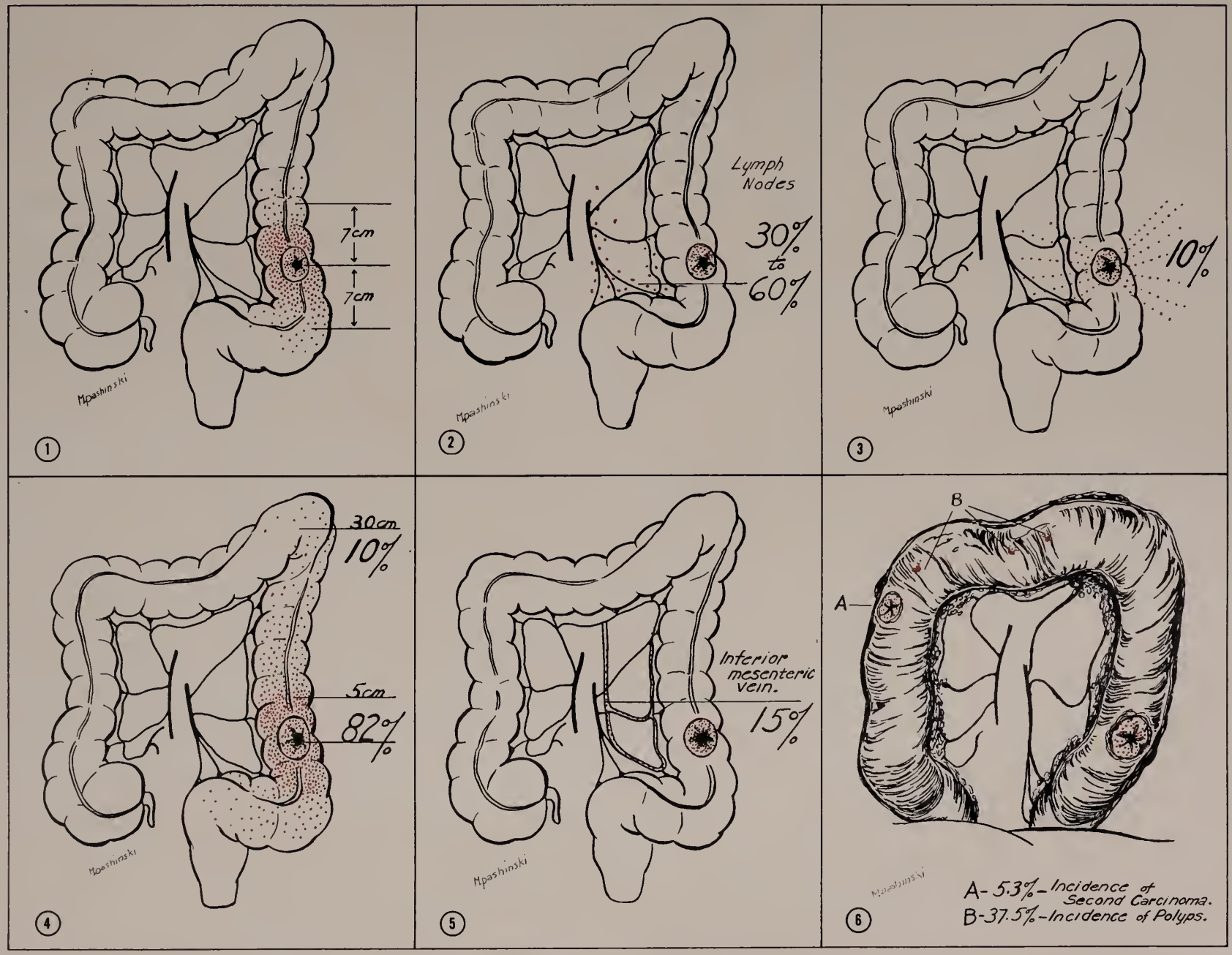
In the case of intramural extension, microscopic spread occurs up to 7 cm. in the subserosal or perirectal lymphatics on either side of the gross tumor.[1] Thus, considering only the factor of intramural cancer spread, the minimum safe resection should include at least 10 cm. of colon on either side of the tumor. As will be pointed out later, a 30 cm. margin is desirable.

Nodal mestasases have these features: emboli may skip nodes adjacent to the colon and involve nodes at the base of the mesentery;[2] the surgeon's impression of whether or not a node is involved is often wrong;[3] and the artery or

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Fig. 1. *Intramural Metastases*: Extension within the colic wall along subserosal lymphatics occurs up to 7 cm. beyond the gross confines of the carcinoma. Fig. 2. *Lymphatic Metastases*: Lymph node metastases occur in from 30 to 60 per cent of cases. The percentage varies depending on location of the tumor along the course of the colon, and probably on the thoroughness with which one performs the laboratory dissection. Fig. 3. *Transperitoneal Metastases*: Malignant cells are shed into the peritoneal cavity from the serosal surface of the tumor in approximately 10 per cent of cases. Fig. 4. *Intraluminal Metastases*: Malignant cells are broadcast into the lumen of the colon, 82 per cent of cases showing tumor cells within 5 cm. of the tumor, 10 per cent of cases at a distance of 30 cm. from the tumor. *Ten to fifteen per cent of resections for cancer of the colon fail* because of local recurrence felt due to implantation of intraluminal oancer cells at the time of initial surgery. Fig. 5. *Intravenous Metastases*: With gentle tumor handling, about 15 per cent of cases will show cancer cells in the venous return from a tumor area. Fig. 6. *Secondary Tumors*: Additional tumors of the colon should be sought out. In one series of carcinoma of the colon, 5.3 per cent were found to have two carcinomas, and 37.5 per cent of the series were found to have one or more polyps.


7cm
7cm
Mpashinski
1
Lymph Nodes
30% to 60%
Mpashinski
2
10%
Mpashinski
3
30cm
10%
5cm
82%
Mpashinski
4
Inferior mesenteric vein.
15%
Mpashinski
5
B
A
A- 5.3% - Incidence of Second Carcinoma.
B- 37.5% - Incidence of Polyps.
6

arteries of supply to a colic cancer will usually form the pathway of lymphatic extension.[3]

Wide resection of node-bearing tissue is felt justified in view of several reports. Series comparing cancer of the right colon (hemicolectomy) and left colon (more limited resections) show definitely better five-year survival chances in cancers of the right colon,[4,5] despite a higher incidence of positive nodes on the right.[3,6,7] Exacting autopsies were performed on 11 patients who died within days of surgery for cancer of the colon and rectum: 4 contained residual retroperitoneal tumor, in 3 of which (27 per cent) a dissection only 1.5 cm. wider would have included all apparent tumor![8] In another series of 36 patients upon whom left colectomy with inferior mesenteric artery ligation was performed, 14 per cent had positive nodes within 2 cm. of the origin of the artery.[9]

Deddish of New York's Memorial Center has carried his surgical attack for cancer of the rectum and distal colon beyond the usual radical operations appearing in the literature.[10] Briefly, in more advanced lesions he not only ligates the inferior mesenteric artery, but essentially strips the central area of the dorsal abdominal wall from the duodenum to the obturator areas, coupling this with radical panhysterectomy in females or, at times, with seminal vesiculectomy and partial prostatectomy in males. Five-year end results are ready in 114 patients.[11] Of the group, 14.9 per cent had positive extramesenteric nodes (obturator, para-aortic, hypogastric), which are nodes in addition to those removed by the usual Miles procedure. Of these 14.9 per cent, 17.6 per cent (or 2.6 per cent of the total group) have survived five or more years. It is questionable if the risk of such extensive surgery will be generally accepted, since 85.1 per cent were subjected to the increased surgery without positive extramesenteric nodes being found, and of the 14.9 per cent with these positive nodes, only about one in six actually lived as long as five years.

Cancer Seeding

Cytologic studies have shown that cancer can be broadcast from the colon in at least three directions during surgical manipulation. First, cells can be wiped off the serosal surface of tumors of the colon in a reported 10 per cent of cases.[12] Parenthetically, Duke's classes B and C (extension to serosa without and with node metasases, respectively) comprise about 80 per cent of cancers of the colon.[13]

Fascinating studies have been published in which cancer cells have been found free within the intestinal lumen; these cancer cells may be caught in the line of anastomosis to produce recurrences.[14-16] McGrew *et al.*[17] report that the frequency with which such cells can be found diminishes the further from the tumor one goes in taking mucosal smears.

Whereas 82 per cent of specimens will show positive cells when smears are taken 5 cm. from the tumor, only 10 per cent of specimens are positive at 30 cm. The size, grade and site of the tumor bear no apparent relationship to the problem. Pre-operative enemas are apparently not an aggravating factor. The ileocecal valve is ineffective in preventing retrograde spread, and positive cells are often found in the terminal ileum in lesions of the ascending colon.

Cancer cells are undoubtedly shed intermittently into the blood stream in a high percentage of cases. Turnbull[18] believes that such venous metastases are greatly increased by surgical manipulation. Isolating the venous return from involved colon segments, he massaged the cancer in 33 cases, recovering tumor cells from the blood in 10 patients. Subsequently, in 67 patients in whom the tumor was handled as gently as possible, positive cells were recovered in an additional 10 patients. In a patient with rectal carcinoma metastatic to the liver, he found mulitiple blood samples cancer-free before normal digital examination of the tumor, and then showers of cancer cells following examination.

Host resistance to blood-borne cancer cells undoubtedly varies from patient to patient. In a series of patients shown to have cancer cells free in the blood, many survived and were apparently cancer-free several years following surgery.[13] The factors causing decreased resistance are not well understood. In experimental animals, successful embolization is facilitated by a sluggishly moving blood stream in an organ possessing decreased oxygen saturation and a rich carbohydrate content—for example, the liver.[19]

In rats another study showed that the percentage of liver "takes" is directly related to the number of tumor cells in the injected suspension.[20] It was also found that nitrogen mustard injected shortly after tumor inoculation caused the rate of liver "takes" to fall from 97.4 to 19.4 per cent. Delaying nitrogen mustard adminis-

tration a day or two markedly decreased its effectiveness.

Unforeseen Tumors of the Colon

Polyps and second carcinomas are frequently unforeseen findings in those undergoing surgery for carcinoma of the colon. In 131 patients who died soon following surgery for carcinoma of the colon and rectum, autopsies disclosed the residual colon to contain premalignant polyps in 37.4 per cent, and to contain a second carcinoma in 5.3 per cent.[21] Advocating total or near-total abdominal colectomy for carcinoma, another study indicated that 5 of 43 patients (18.6 per cent) with cancer of the colon either were found to have a second malignancy at initial surgery, or developed a new, primary carcinoma of the residual colon in from 6 months to 17 years after a previous colectomy.[22] In the majority of the 5 cases cited, although surgery was originally intended for carcinoma of the left colon, the second carcinoma was found in the right colon.

The Second-Look Operation

Wangensteen and his group have been reoperating upon patients found to have positive lymph nodes at initial surgery for gastrointestinal carcinoma. Specifically, carcinoma of the colon second-look operations have had more gratifying results than such surgery elsewhere in the gastrointestinal tract. Approximately six months following initial surgery, and while the patients are asymptomatic and without clinical evidence of residual cancer, they are re-operated upon. Any suspicious nodule is removed. If cancer is found, these patients are opened again in another six months.[23]

Of 27 patients with positive lymph nodes at the first operation, *and in whom cancer was found at subsequent operation(s)*, 5 are living and well, with a negative exploration for cancer at the final operation. There have been no operative deaths in this series except in those with advanced cancer; there have been no operative deaths in an additional group of 24 with positive lymph nodes at the initial operation, in whom cancer was not found at the second-look operation.

That is, of 51 patients subjected to second-look surgery, no operative deaths were experienced in those without advanced cancer, and 5, or possibly 6, have apparently been salvaged for periods ranging up to six years. Arhleger of the University of Minnesota contrasts this survival rate with roughly comparable survival rates for surgery of carcinoma of the lung or stomach, indicating that there is as much rationale for second-look surgery as there is for primary surgery of lung and stomach carcinoma.[24]

Arhelger's point seems well taken, but I join most surgeons in being rather reluctant to embark on the second-look venture at this time.

Discussion

The focus should be shifted in surgery for cancer of the colon from an initial attack on the tumor itself, to an approach directed at sealing all known avenues of metastasis before the tumor is mobilized. The extent of resection should be as wide as possible, compatible with the condition of the patient, to include not only an extensive resection of lymphatics but an extensive resection of colon itself. The latter step is important for three reasons: removal of intramural lymphatic extension, removal of mucosal surface contaminated near the tumor with free cancer cells, and removal of possible malignant or premalignant polyps. Prior to anastomosis of remaining segments of colon, an endoscopic search should be made for further tumor growth.

Venous dissemination of cancer cells is the factor which ultimately kills the patient. Chances of cancer cells successfully grafting into host tissue, be it liver, lung or bone, depend apparently upon the quantity of cells released by surgical manipulation, upon the viability of these cells and upon host resistance. Quarantining the vascular supply of a tumor before surgical manipulation seems a reasonable step. The viability of cancer cells may be decreased by administering nitrogen mustard or triethylene thiophosphoramide (thioTEPA) before they have grafted themselves into host tissue. An arresting concept, nitrogen mustard administration, at least in full dosage, will probably not receive wide acceptance until its usefulness has been demonstrated to exceed its potential harm. Factors which can increase host resistance are largely unknown, but it is hoped that generous blood replacement and adequate oxygenation in the immediate postoperative period may be beneficial in this respect.

The above steps, if individualized and applied judiciously, are unlikely to harm the patient, and hold promise of improving our static figures of success.

A Technique of Colon Resection

Based on the information reported up to this

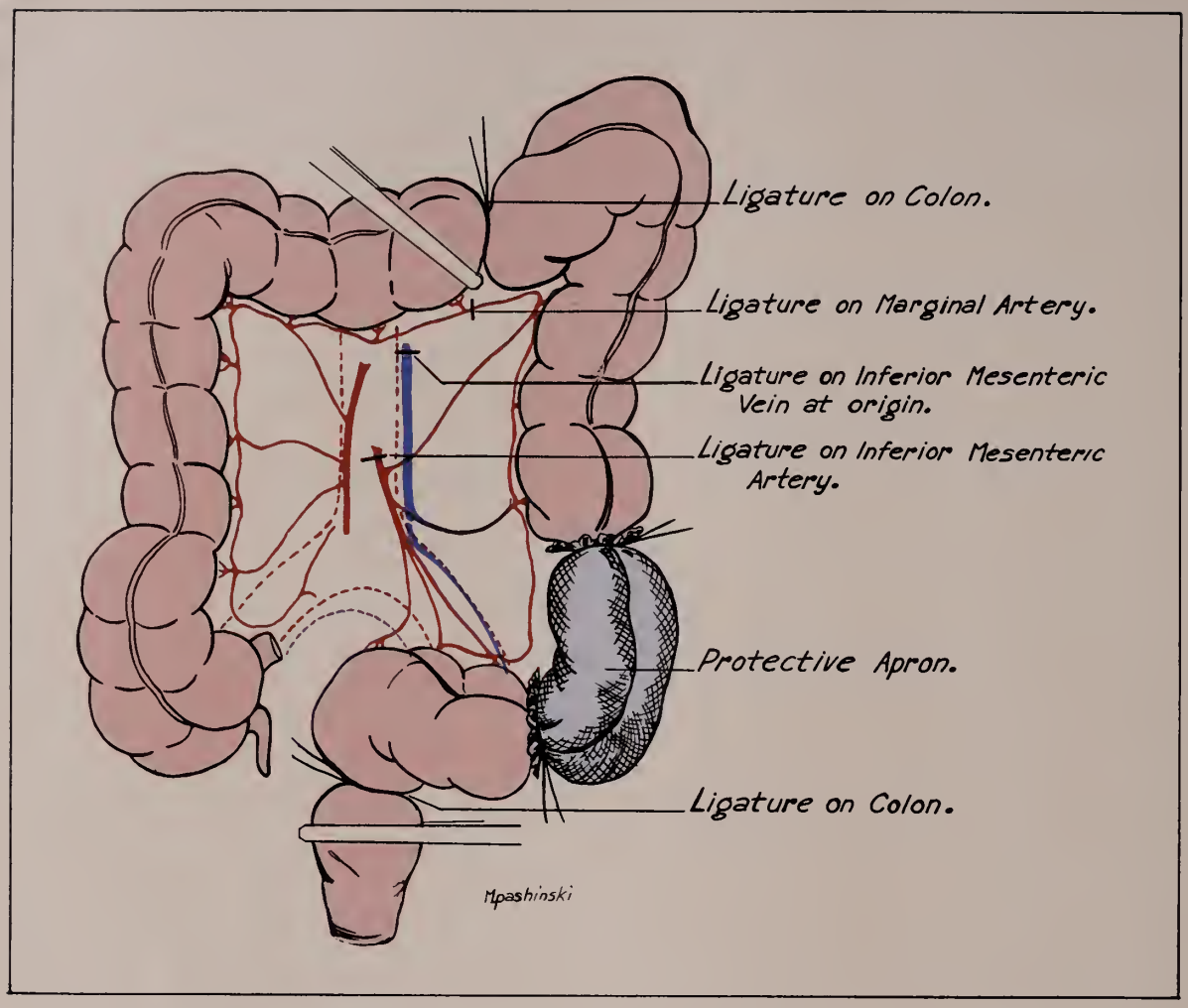


Fig. 7. Summation of operative steps prior to mobilization of the tumor.

point, the following plan of surgery seems indicated. A generous transverse or oblique incision should be outlined, a fraction of the intended incision actually being accomplished initially. If there are no obvious liver or peritoneal metastases, the abdomen should be opened widely. Failure to do so can only lead to unnecessary manipulation of tumor tissue, and may well be an important factor in the generally poorer results in cancer of the flexures and transverse colon.

Ligation of the colon on either side of the tumor is accomplished. Umbilical tape ties should ideally be placed about 30 cm. from the tumor both proximally and distally. In tumors of the cecum the tie should be placed on the ileum, because of the previously mentioned passage of tumor cells through the ileocecal valve. In tumors of the sigmoid a compromise is necessitated if an anastomosis is to be achieved, the tie being placed 8 to 10 cm. distal to the tumor. Two points should be remembered in estimating such distances: the gross tumor is usually larger than estimated to be the case at surgery on the unopened colon; the measurement suggested is based, not on stretched, but on relaxed colon.

The vascular pattern should then be determined, it being the objective to isolate at their origins the major vascular trunks to the involved colon segment. As has been shown in another report,[25] the vascular resection to be accomplished must be determined at surgery; individual variations of arterial anatomy are so numerous that predetermined patterns of resection based on textbook concepts can lead to serious error. In general, the vascular resection should begin along the superior mesenteric or aortic origins of the vessels concerned. That is, in lesions of the ascending colon all colic branches should be divided at the superior mesenteric artery; in lesions of the descending and sigmoid colon and rectum, the inferior mesenteric artery should be

divided at the aorta; and in lesions of the transverse colon and splenic flexure, middle colic artery together with either left colic or inferior mesenteric artery division should be performed, necessitating essentially a total colectomy with anastomosis of cecum or terminal ileum to the lower sigmoid colon.

Since lymphatic trunks accompany the colic arteries, the lymphatics will of necessity be divided in this dissection. In resections of the right colon, venous drainage will also be simultaneously interrupted. However, in surgery of the left colon and rectum, the inferior mesenteric vein should be searched out and ligated in its course toward a junction with either the splenic or superior mesenteric veins: draw the proximal jejunum outward, incise the ligament of Treitz, and find there the terminus of the inferior mesenteric vein.

In accomplishing the vascular transections outlined above, the entire mesentery to the involved segment of colon will be divided near the midline. Involved colon will then be essentially devascularized and anatomically isolated except for the marginal arcade, which passes in a paracolic position, usually along the entire course of the abdominal colon. At this point, ties should be placed on the marginal vessels.

An impervious shield should then be tied in position about the cancer to minimize dissemination of cancer cells from the serosal surface of the tumor. An effective shield may be readily fashioned from polyethylene sheeting approximately 15 cm. on a side, and snugged into position with umbilical tape ties.

The involved colon is mobilized at this point, and divided both proximally and distally. The specimen is given to the pathologist at once for open inspection of the colon. Submucosal bleeding is stopped with Allis clamps. Sterile sigmoidoscopy equipment is now used to perform inspection of the residual colon, the surgeon being governed by his findings of polyps or an unsuspected second carcinoma. A generous irrigation of the proximal and distal segments of colon is then accomplished with normal saline, injecting it into the bowel with a bulb syringe, aspirating it before overflow occurs with a Poole (sump-type) suction tube. Rubber-shod clamps should isolate the segment being irrigated from the rest of the colon; otherwise the operative field may be soiled by an enema effect. A several centimeter margin of colon is next excised from both segments to obtain a fresh surface for anastomosis. Hemostasis is obtained in the submucosal area with ties of fine catgut.

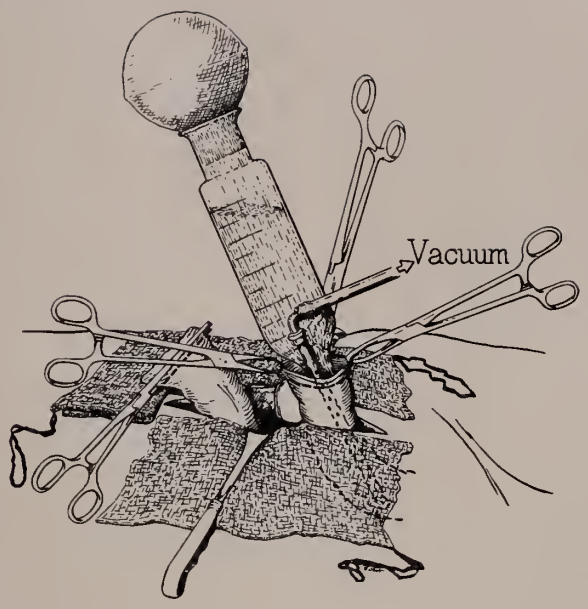


Fig. 8. Irrigation of proximal and distal colon prior to anastomosis. Note dotted line at stoma indicating site of excision of possibly contaminated remnant. Not shown: a rubber-shod clamp should be used to occlude bowel near suction tip to avoid peristaltic rush and soiling of operative field. (Reprinted from issue of August 1952, page 268, by permission of A.M.A. Archives of Surgery.)

Standard anastomosis of the colon is performed at this point. I use a two-layer closure of inner lock-stitch fine catgut from mucosa into muscularis, and an outer interrupted fine cotton from serosa into muscularis. Following repair of the mesenteric defect, and reperitonealization where practical, the wound is closed with stainless steel wire. The sutures pass through peritoneum and all fascial layers in a vertical, figure-of-eight suture. A one-layer closure of strength tissues is thereby accomplished by what are essentially buried retention sutures. Subcutaneous tissues and then skin are approximated with fine suture material. Skin sutures are not removed for three weeks unless marked suture reaction occurs. Thus, an occasional instance of fascial separation will find superficial cover, marking the difference between dehiscence or evisceration, and incisional hernia.

Summary

Advances in the surgical approach to cancer of the colon have taken two general directions: a wider resection of colon and lymphatics, and quarantine of the tumor at surgery.

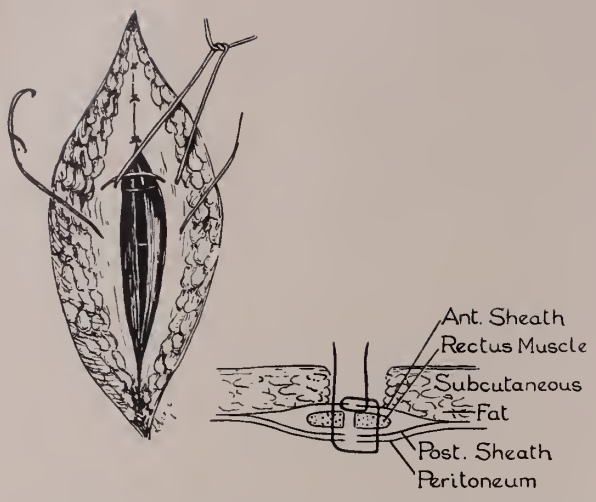


Fig. 9. Stainless steel wire closure of paramedian rectus splitting incision, which is essentially buried retention suture of strength tissues. (From Graham and Gray, in Operative Technic in General Surgery, 2nd Ed., 1955, edited by Warren H. Cole. Courtesy of Appleton-Century-Crofts, Inc.)

The argument for wide colon resection includes the following: removal of microscopic infiltration of the intestinal wall which occurs up to 7 cm. beyond the gross tumor, removal of mucosal surface contaminated with loose tumor cells, and removal of possible premalignant or malignant polyps.

Lymphatic resections have been extended because of the difficulty of assessing the extent of lymph node involvement at surgery, the higher incidence of five-year survival in those receiving wide lymphatic resection, autopsy studies in the immediate postoperative period showing lymphatic involvement limited to just beyond the scope of narrow resections and finally, studies on hemicolectomy specimens in which lymph node involvement can be plotted.

Quarantining the tumor is practiced to prevent tumor cell spread from: 1. the serosal surface into the general peritoneal cavity, 2. along the mucosal surface to be incorporated into the line of anastomosis, and 3. through the venous return upon manipulation of the tumor.

Host resistance to blood-borne tumor cells apparently varies from person to person, and experimentally is related to decreased tissue oxygenation and an abundant carbohydrate supply. Nitrogen mustard will cause a marked reduction in tumor cell liver "takes" in rats, if given soon enough following tumor inoculation.

The problem of multiple tumors of the colon necessitates an acute awareness of the high incidence of pre-operatively unsuspected additional tumors.

Surgical principles proposed are these: initially sealing the vascular channels of possible metastases before mobilization of the carcinoma, ligating the colon at points as much as 30 cm. on either side of the tumor, wrapping the tumor in an impervious shield before mobilizing the specimen, and then coloscopy and irrigation of the remaining colon segments prior to anastomosis. The use of nitrogen mustard immediately following resection is fraught with hazards, at least in full dosage, and should probably be restricted to research cases until its value is established. •

Fifth & Browne Doctors Bldg. (4).

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Pioneer Medicine in Clarke County, Washington

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The year 1958 marks the centenary of St. Joseph's Hospital, one of the oldest hospitals in the Northwest, and the first permanent hospital in the Washington Territory.[1]

Dr. Larsell records the founding of an older hospital at Fort Vancouver in 1833. This building was erected by Dr. Meredith Gairdner and was the first permanent hospital in the Pacific Northwest. Previous to this time, Dr. John McLoughlin was the only physician in this area. The "White Headed Eagle," 40 years of age, administered in a limited way to the medical needs of his community but from the first, his medical activities were overshadowed by his administrative duties.

Hudson's Bay Company Physicians

In 1829, there began epidemics of fever which may have been largely malaria. They swept the area, taking heavy toll of the Indian population, and the whites to a lesser degree. When Dr. McLoughlin was attacked with the fever, he instructed a young Englishman, George T. Allan, to care for the sick. Allan wrote to the Hudson's Bay Company telling of his tramps through the men's house with his pockets lined with vials of quinine, and of his report of the state of the patients to Dr. McLoughlin. It is recorded that when there was no quinine, dogwood root was used as a substitute.

Dr. Gairdner, because of ill health, went to the Hawaiian Islands in 1835, and Dr. John Kirk Townsend was in charge of the Fort Vancouver Hospital. After one year, Dr. Townsend returned to the States and Dr. Tolmie took charge of the hospital until Dr. Forbes Barclay arrived from England in 1840 to take charge of the hospital, and here he remained for 10 years.

Dr. Larsell has so ably covered the subject of the doctors serving this area as Hudson's Bay Company physicians, that it is unnecessary to repeat their names and contributions. His description of the crude medical headquarters and the surgical equipment consisting of instruments for amputation, trephining and lithotomy, besides midwifery forceps and a multitude of catheters, sounds, bandages and forceps, gives us an idea of the pioneer facilities. His research, listing the diseases that existed at that time with their symptoms and treatment, makes fascinating reading. Suffice it to say that typhoid fever, whooping cough, measles, malaria, and typhus, appeared and reappeared alternately in mild and epidemic forms. The Indians suffered much higher mortality rate than did the white man. In a letter written by Dr. McLoughlin Sept. 1, 1832 to Mr. P. C. Pambrun, Walla Walla, he states at the end of his message, "I am sorry to inform you that the intermittent fever is raging with great violence at this place, but thanks be to God for His mercies, none of our people as yet have died."[2]

A letter of Dr. McLoughlin Nov. 18, 1830 to Capt. Ryan, requesting among his supplies the following drugs, gives us an idea of the medicine then in use.

½ lb. Gum Camphor
½ lb. Sulphat Quinine
12 lbs. Best Peruvian Bark
1 lb. Acetate Lead
1 lb. Crude Opium
20 lbs. Epsom Salts
4 lbs. Rhubarb Powder

1850 marked the end of the Hudson's Bay Company medical regime and the beginning of Fort Vancouver Hospital as a part of the Mili-

tary Post. Dr. Barclay then removed to Oregon City to cast his lot with the young American settlement, becoming later a citizen of the United States. He continued in active practice at Oregon City until his death on May 13, 1873.

Sisters of Charity of Providence

As the community surrounding the army post grew, there developed a need for hospital facilities. There were an estimated 400 to 500 whites and uncounted Indians. These people were looking for help to the Sisters of Charity of Providence who had arrived Dec. 8, 1856, after a 6,000 mile trip from Montreal, Canada. These five devoted women, led by Mother Joseph of the Sacred Heart, came on the steamer Illinois to the Isthmus of Panama, which they crossed by foot, and embarked on the steamer Golden Gate for San Francisco. After a dangerous journey, they arrived at Vancouver, which then consisted of a small fort, the homes of a few fur traders and their families, together with the more squalid dwellings of a number of Indians and half breeds.[1] The Sisters cared for orphans, visited the sick in their homes and performed other acts of kindness.

The record of the work of these devoted Sisters in this pioneer area showed that they suffered in not being able to admit sick people, not even the destitute, to their Mission.[3] A young unbaptized stranger, John Cloyd, 24 years old and in the last stages of tuberculosis, begged the Sisters for admission at the Providence. The whole town pleaded his cause, and it was evident that a hospital was a necessity. Because of the urgent need, a temporary hospital was opened when Sister Joseph of the Sacred Heart offered the town a part of the building which she was planning to use as a laundry and bakery. The building was 16 x 20 feet and was 8 feet high (Fig. 1). It had no partitions. Father Brouillet, the Vicar General, organized an assembly of local women called an "Association of Charity." To his appeal, 29 of the most respectable persons of Vancouver responded. Of these, about 12 were Catholics, and the others were Episcopalians, Methodists and Jews. The Vancouver Ladies of Charity assembled for the first time April 6, 1853.[4] Sixteen were actually present and 13 others could not attend. Thus on April 9, 1858, began the work of bringing to the Northwest the first hospital. Sister Joseph and one of her workmen put in a ceiling of rough lumber. The walls and ceilings were covered with a lightweight muslin fabric and then with a simple wallpaper. The first furnishings consisted of four beds with four accompanying bedside tables and chairs, purchased with money given by the women of the "Association of Charity" which they had collected from dues of 12½ cents per week. They met twice a month, on Wednesdays, for sewing, providing for the needs of patients unable to pay for hospital care. In addition to these tasks, these same women also installed a pharmacy. The first president of the Association was Mrs. William Rodgers, an Episcopalian, who was the first woman to die in this pioneer hospital. She died from appoplexy Nov. 5, 1858.



Fig. 1. Original St. Joseph's Hospital (St. James Mission) 1858.

First Days of St. Joseph's Hospital

From the record of the Sisters of Providence in Oregon from 1856, the following is recorded in their report of the hospital for the last eight months of 1858: ". . . it was founded April 6, 1858, it had a daily average number of patients, three or four, the total number admitted during the eight months was fifteen, and the number of patients who died at the hospital during the eight months was three."[3]

The insane people, so woefully neglected in early times, were given kindness and good care in this early hospital from 1861 to 1866. In the *Vancouver Chronicle* June 13, 1861, there appeared the following:[5] "The Sisters of Charity have kindly taken care of the poor insane woman who has been for months confined in the county jail. The absence of an insane asylum in Oregon or Washington Territory is seriously felt and should earnestly engage the attention of the

next Legislature. We understand that the Sisters are willing to provide for the insane and secure for them good medical treatment if a barely sufficient remuneration be guaranteed by law." In 1861 to 1862, there were 2 mental patients, and by 1866, some 25 persons were cared for, first at the small buildings on the Mission grounds, and then later at more spacious quarters on Eighth street, directly west of the Military Reserve. Sister Joseph obtained a contract from the Washington Territorial Government, paying $8.00 a week for lodging, board, washing, medical attendance and care for each insane person.[4]

Governor William Pickering visited the house on Eighth street and was "kindly disposed in our regard." Sister Joseph had hoped that a splendid hospital for the insane would develop in this community. However, the contract was not renewed and the building became the new home of St. Joseph's Hospital.

Illnesses that could not be cared for in the hospital may be seen from a report in the *Morning Oregonian* of May 30, 1862:[5] "The scarlet fever is reported to be raging among the children at Vancouver. Some four or five having died during the past few days, and several more are dangerously ill with the dread disease. We have not heard of any adult person being attacked with the disease as yet."

By the summer of 1866, the hospital had become entirely inadequate.[6] When the insane were removed from Vancouver, the building known as St. John's Lunatic Asylum located at what is now the northwest corner of Eighth and Reserve streets, was renovated to serve as a hospital. This structure was described as a white building, two stories high, containing a small chapel, and surrounded by porches which afforded a fine view of the river and the Fort. In 1868, a large addition was added, and in 1872 the then existing hospital was nearly doubled in size by another addition of a new building at its eastern end. On Sept. 1, 1878, it was destroyed by fire. A new hospital was built and patients admitted March 24, 1879 (Fig. 2). Since the founding of the first hospital, there had been 7,325 patients cared for at the time of the Golden Jubilee April 9, 1908.

On July 28, 1909, work was begun on a new hospital, the present modern brick building situated at Twelfth and Reserve streets. The building was completed March 1911. The first class of nurses was graduated on June 8, 1914, four student nurses receiving diplomas.



Fig. 2. St. Joseph's Hospital from 1879-1911.

Hospital Ledger Entries

The earliest ledger used by the hospital is dated May 13, 1858 to Sept. 18, 1881. A statement on the front page gives an interesting summary of these 13 years as follows: "Six hundred and thirty patients have been admitted into the hospital and upwards of 490 have been taken free of all charge." The first patient recorded was Mary Murry, admitted May 13, 1858, age 27, and in that year there were nine other admissions. John Cloyd, the first to apply for admission, was recorded in the ledger as entering on June 7, 1858 and was the first patient to die. In 1859, there were only 14 admissions, and from then on the increase was very gradual. The hospital charge per day was $1.00 which included medicine (Fig. 3). The hospital stay of the first

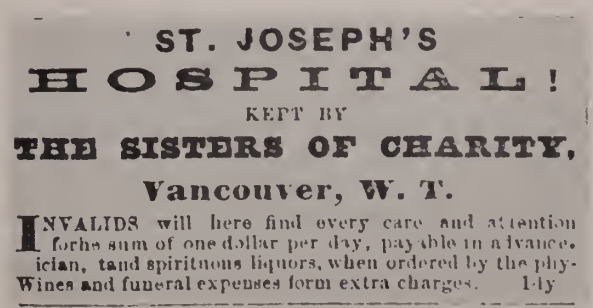

ST. JOSEPH'S
HOSPITAL!
KEPT BY
THE SISTERS OF CHARITY,
Vancouver, W. T.
INVALIDS will here find every care and attention forthe sum of one dollar per day, payable in advance. ician, tand spiritnous liquors, when ordered by the phy-
Wines and funeral expenses form extra charges. 1-ly

Fig. 3. Advertisement in the *Vancouver Register*, 1869.

patient was 33 days, and the hospital received $33.00 in cash. On June 17, the ledger records a patient, Catherine Cosgrove, who remained in the hospital 169 days, and another patient 197 days. The ledger is beautifully kept and the penmanship is shaded. Typical of another patient's hospitalization is the following ledger account:

2 months and 16 days care
at $1.00 per day ..... $ 78.00
Bitters liquors 52.50
Burial expense 23.50

Another expense account:
33 days attendance ..... $ 33.00
Liquor 4.00
Coffin & burial expense 25.00

Another:
6 months attendance $183.00
Coffin $20.00, grave $3.50,
funeral service $6.50,
hearse $5.00 ..... 35.00

The first doctor's fee to be recorded was on Dec. 23, 1874:
Hospital attendance ..... $ 12.00
Doctor's fee 15.00
Burial expense 25.00

Credit Jan. 23, 1881, on a hospital account:
27 chickens @ $ .25
7 ducks @ .50
14 lbs. butter @ .15

Still another entry in the ledger showed a fee of $368.00 for that many days in the hospital.

The second ledger is dated Sept. 18, 1881 to March 1, 1907. The times must have been hard, since many patients have under their names and charge the notation "charity case" written in beautiful shaded writing. The county in 1881 assumed some responsibility for indigents and paid some of the cost. A rather large number of orphans were also cared for without charge by the Sisters of this pioneer hospital. The fees in 1881 were $1.50 a day, and it appears that about this time, the charges were made in some instances on the weekly plan. The charge for the week ranged from $4.00 to $14.00 a week in 1882. For a single day, the charge ranged from $1.00 to $2.00 a day by 1882, but usually it was $1.00.

An interesting charge appeared in the ledger of May 12, 1883. The patient was charged for care at $8.50 per week, and in addition, he was indebted for the following during his last hospitalization:

Liquor $15.00
Washing 35.25
Coffin 25.00
Funeral service 15.00
Hearse 4.00
Grave 6.00
Shroud 2.00

Also, for the first time, a special duty nurse was employed at $1.50 per day for 135 days.

In February 1895 to March 1896, a man was cared for at $16.00 per month. The bill amounted to $220.00 and was paid monthly.

Another recorded payment, other than by money, was made in June 1898, when 18 cords of wood were received and credited at $1.40 per cord. At another time, a bill was credited with potatoes $.20, turkeys $15.75 and pumpkins $3.00.

Rarely was medicine charged for, but in August 1898, an entry was made for liquor $8.00 and medicine $3.50 for a Mr. John Golden. From this time on, small charges were often entered for medicine.

In November 1900, for the first time, a charge was entered of $5.00 for use of a surgery room. There was no indication what type of surgery was performed. Again in January 1901, a patient was charged for use of the surgery. In October 1902, a patient again paid for use of the surgery, and in January 1903, for the first time, a patient was charged for dressings, and the following year, charges were made for plaster of Paris. Use of the surgery became quite common after 1902, but no charge of more than $5.00 was recorded.

Private contracts between the doctor and hospital first appeared in 1904, when Dr. R. D. Wiswall was charged for two patients from the Columbia Quarry at a price of $38.00. In 1907, Dr. Wiswall was again charged for 50 days hospitalization for a quarry patient, Gus Logburg, at $1.00 per day.

The third ledger in excellent condition was dated March 1, 1907 to Jan. 1, 1910. The fee per day was still usually $1.00, with very few extra charges. The diagnosis was occasionally entered, such as pneumonia, and the doctor's name was sometimes entered. Names of doctors recorded were: R. D. Wiswall, Chalmers, West, Smith, Pompe, Golden, Wall, Hixon, Scanlan, Black, Stowell, Carr, Lock, Shaw, Darnell, Van Zant, Pierce, Flagg, Sedgwick, and Leiser.

Drug Stores and Prescriptions

A history of pioneer medicine would be incomplete without some information on the apothecary shops and the doctor who compounded and dispensed his remedies.

Dr. David Wall opened the first drug store in Vancouver in 1865.[7] His advertisement appeared in the *Vancouver Register* of May 2, 1869, for The Vancouver Drug Store. In the *Vancouver Independent* Aug. 28, 1889, Dr. Wall's drug store advertisement also appears. (See figures 4, 5, 6.)



Fig. 4. Dr. David Wall (1824-1902) practiced medicine in Vancouver 40 years.

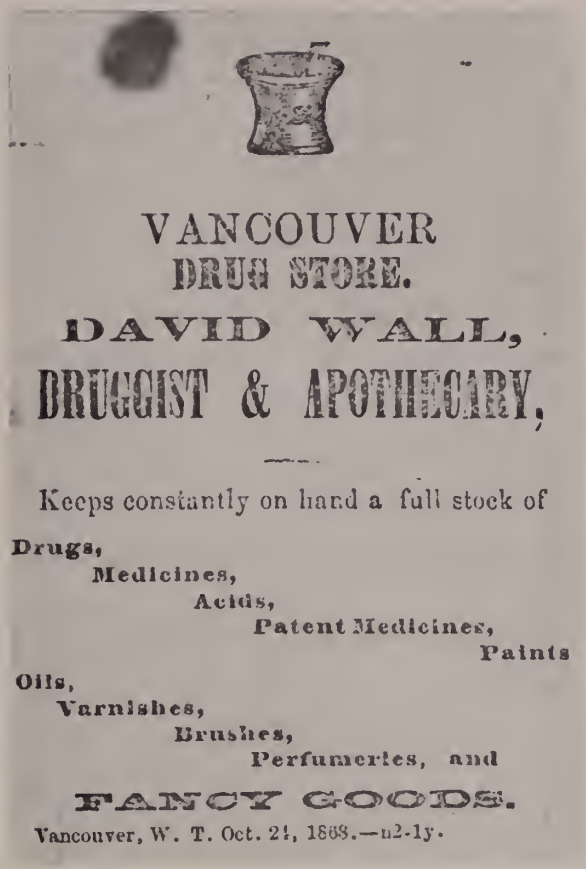


Fig. 5. Advertisement of Dr. David Wall's Vancouver Drug Store appeared in the *Vancouver Register* of May 2, 1869.

This store was located at the northwest corner of Fourth and Main streets. It was erected in 1867 of brick construction. Dr. Herbert Lieser remembers when leeches could be bought for 25 cents each and were used by both physicians and the public.[8] The pharmacy of that day contained much patent medicine as also did the general store.

A. C. Chumasero, proprietor of the City Pharmacy, purchased the drug establishment of A. L. Ross. His drug store in 1893 had the prescription department managed by a graduate of pharmacy.[9]

In this old drug store at Sixth and Main, now operated by Matt and Kenneth Zapp, are many bound volumes of prescriptions. *David Wall, druggists, Vancouver W.T., apothecary, etc.*, appeared on prescription pads in these prescription books.

Typical of prescriptions written in 1884:

No. 15108—Dr. J. Randolph Smith
Rx. Acid carbol drachms ss
Hydrate chloral drachms 1
Morph Sulph grs IV
Aqua qs OZ. III
Sig. Use as a gargle
Rx. No. 15127
Inf. Digital Oz. VI
Tinc. Nucis Vom drachm 1
Sig. tablespoonful night and morning
May 5, 1884 No. 15125
Rx.
Opis Pulv. gr. X
Ft. Chart No. VI
Sig. one every four hours for pain
Rx.
Quin. Sulph drachm I
Ft. Pulvule No. XII
Sig. take one every four hours.

Tranquilizers in the form of bromides, chloral hydrate, morphine and spt. frumenti, were common. Purging was evident by the Rx.'s written for C. C. pills, aloes, jalap, calomel and for many other laxatives.

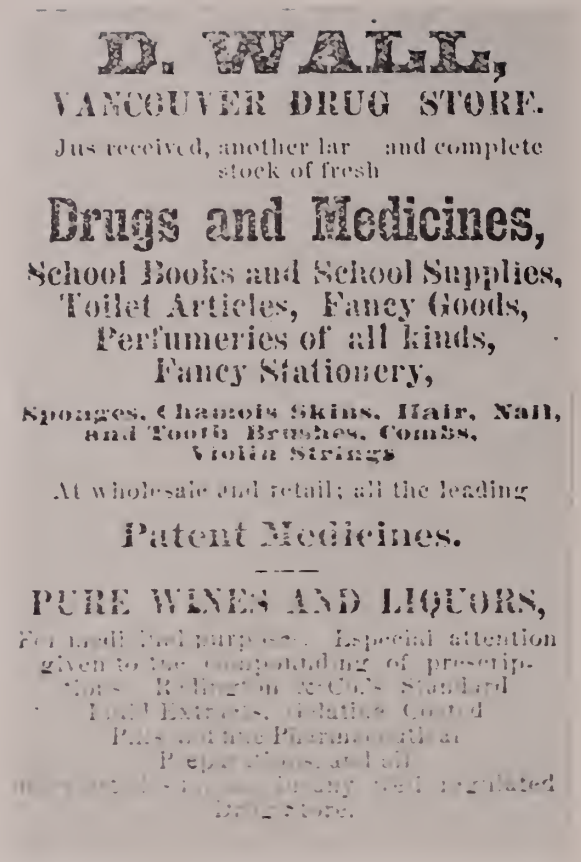

D. WALL,
VANCOUVER DRUG STORE.
Jus received, another lar and complete stock of fresh
Drugs and Medicines,
School Books and School Supplies,
Toilet Articles, Fancy Goods,
Perfumeries of all kinds,
Fancy Stationery,
Sponges, Chamois Skins, Hair, Nail, and Tooth Brushes, Combs, Violin Strings
At wholesale and retail; all the leading
Patent Medicines.
PURE WINES AND LIQUORS,
For medical purposes. Especial attention given to the compounding of prescriptions. Remington & Co's Standard Fluid Extracts, Sealed Cotton Pills and the Pharmacopeial Preparations kept.
Drug Store.

Fig. 6. *Vancouver Independent* of Aug. 28, 1889 carried an advertisement of Dr. David Wall's Vancouver Drug Store.

A prescription for Joseph J. Smith, Veterinary Surgeon with offices at Misner Brothers' Stable on Taylor Street between First and Second, Portland, Oregon, was recorded in the prescription book given me by Kenneth Zapp.

Dr. David Wall, pioneer druggist (Fig. 4), dispensed his medicine throughout the county as he travelled using his horse and buggy conveyance.[10] Dr. Wall was a native of Ireland, born Feb. 29, 1824. He came to this country while he was still young and entered the service of the army as a hospital steward. Soon after his honorable discharge, he started in business for himself and practiced medicine for 40 years in Vancouver. Dr. Wall, in addition to owning an apothecary shop and practicing medicine, was vice-president of the First National Bank of America in Vancouver.[13] He died in San Francisco in 1902 at the age of 78. He was brought to Vancouver, and his body was placed in state in the large hall of Providence Academy before burial. His son, Dr. Harry Wall, died at the age of 53. He was a member of the AMA and the State Medical Society.

Newspaper Reports and Advertisements

From the records of the Clarke County auditor's office, the following named persons are registered as early practitioners of medicine. (Taken from the *Clarke County Register* in March 1882.)[5]

James M. Burt, born Ohio 1832. Practiced medicine Missouri 4 years and in Clarke County the past 7 years. No degree in medicine. Located in Battle Ground, Washington in 1878, moving in 1892 to Vancouver, Washington.

Ephrain T. McKenny, born Michigan 1835, practiced medicine 10 years in Iowa. No degree in medicine. Attended lectures in the Medical Department of the Iowa State University 1872-1873.

Richard S. Davis. Born in Maine. Practiced in LaCenter, Washington. Had no degree in medicine.

John Randolph Smith. Born Peoria, Ill. Doctor of medicine degree. Willamette University 1878.

Fred Wm. Sparling. Born in Ireland. Practiced medicine in Washington Territory 8 years including hospital for the insane at Steilacoom. No medical degree. Practiced in Vancouver since 1881.

Solomon Lowell, born in New York. Present residence LaCenter. No degree in medicine.

David Wall. Born in Ireland. No medical degree. Practiced medicine in Clarke County since 1856.

A surgical operation made the headlines in June 1882 according to the *Vancouver Independent*. "Important operation—Yesterday Dr. Randolph Smith assisted by army surgeons Heizmann, Moore, Gardner, Wilson and Dr. Wall, performed an operation on Arthur Baker, who has been suffering more than a year from hip disease. Two hours and a half were occupied in the operation. As much of the diseased bone as possible was removed. The patient was left in fair condition, considering the severity of the operation, which was necessary to save life."[5] Dr. Smith, in addition to serving the community as a physician and surgeon, was the mayor in 1891.

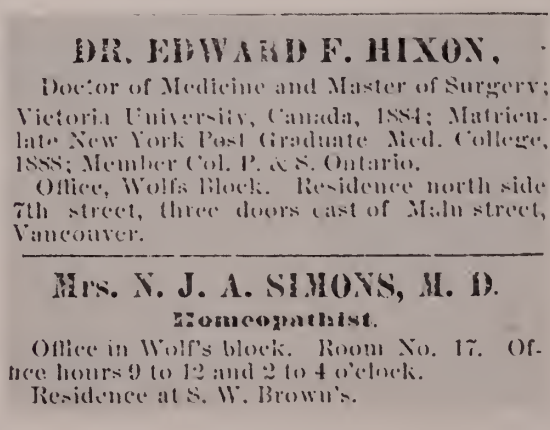

DR. EDWARD F. HIXON,
Doctor of Medicine and Master of Surgery; Victoria University, Canada, 1884; Matriculate New York Post Graduate Med. College, 1888; Member Col. P. & S. Ontario.
Office, Wolfs Block. Residence north side 7th street, three doors east of Main street, Vancouver.
Mrs. N. J. A. SIMONS, M. D.
Homeopathist.
Office in Wolf's block. Room No. 17. Office hours 9 to 12 and 2 to 4 o'clock.
Residence at S. W. Brown's.

Fig. 7. In early newspapers, doctors advertised by the use of cards, such as those shown above which appeared in the *Vancouver Independent* of Aug. 28, 1889.

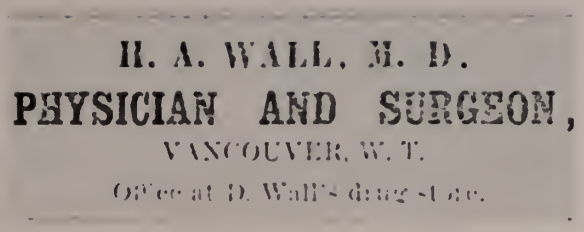


Fig. 8. Doctor's card which appeared in the *Vancouver Independent* of Aug. 28, 1889.

Smallpox was reported in the *Clarke County Register* of Jan. 26, 1882. Dr. J. Randolph Smith ordered the man quarantined in a log house about a mile out of town.

The *Clarke County Register* of June 7, 1888 records "a furious epidemic of measles. In one schoolroom there were forty-four cases of measles out of a total of fifty-five pupils. The St. Luke's Episcopal school was finally reduced to two pupils and that school has also closed up. It is safe to say that at least 500 cases have been reported this spring."

The doctors whose cards appear in the county paper, the *Vancouver Independent*, of Aug. 28, 1889 are:

J. Randolph Smith—Willamette University Medical School.

Edward F. Hixon—McGill Medical School.

Mrs. N. J. A. Simons—Homeopathist.

H. A. Wall—Columbia University Medical School.

John Steiner—Women and Children's diseases a specialty.

The following physicians not mentioned in the hospital records or contemporary papers were recorded by Rev. H. K. Hines.[9]

James E. Stevens, a medical practitioner and druggist of LaCamas, Washington, since 1892 has enjoyed a lucrative practice and conducts the only drug establishment in this thriving village.

John J. Sellwood, one of the prominent medical practitioners of Vancouver, a graduate of Willamette University in 1887, has a large and lucrative practice.

Charles C. Byrne in 1893 was Medical Director of the Department of the Columbia with headquarters at Vancouver Barracks, Washington.

In those days, it was proper to have the doctors' cards in the newspaper. Samples of such advertising may be seen in copies from early newspapers (Figs. 7 and 8).

Patented medicines also were much advertised in the early newspapers (Fig. 9).



Fig. 9. The above example of early day patent medicine advertising was printed in the *Vancouver Independent* during 1889.

The hospital cared for the funeral arrangements for their dead until undertaking became a profession. Figure 10 shows the association of other business with this profession.

In 1902, Dr. R. D. Wiswall located in Vancouver. He had the first x-ray. This machine fitted into a suitcase-like container, and the doctor carried it with him when he made his calls. He took the pictures and had a photographer develop the films.

About this time there were 700 men employed at the Columbia Quarry. Injured men from the



Fig. 10. Before undertaking became a profession, it was associated with other businesses. The above advertisement was published in the *Vancouver Independent* during 1889.

quarry had to be taken by steamer to Portland for treatment, and it frequently happened that these men had to wait long hours by the river bank for the boat to arrive. The quarry superintendent consulted Dr. Wiswall who took the problem to Sister Mary Aurelia, Superior of St. Joseph at that time. With her assistance, a surgical room was prepared for handling these emergencies and injuries. •

111 West 39th Street.

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Jaycees Sponsor Year 'Round Health Program

State and county medical societies will be interested in the recent announceemnt by the U.S. Junior Chamber of Commerce that its 3,000 local chapters are embarking on a year around community health program. The program has been developed in cooperation with the National Health Council.

Program guides have been prepared for each of 10 suggested activities: Salk Vaccine Campaign; Health Fair; Better Sight and Hearing for Children; Poison Control; Assistance to Mental Health for Youth; Adventures in Living for Older People; Help for Handicapped Children; Recreation for Mental Hospital Patients; Jaycee Health Forums; Directory of Health Services.

The Jaycee activities in local communities will not be limited, however, to the 10 programs for which guides are available.

The program guides urge Jaycee leaders to get in touch with local medical societies and health agencies.

Ovarian Pregnancy

A Case Report and Short Review of the Literature

Robert M. Hill, M.D.
ELLENSBURG, WASHINGTON

Cases of primary ovarian pregnancy are still such a rarity that it is thought that a report of another case, along with a short résumé of ovarian pregnancy, brought up-to-date, would be of value.

Spiegelberg's criteria must necessarily be fulfilled before a diagnosis of a true ovarian pregnancy can be made. The criteria are as follows:

1. That the tube, including the ovarian fimbria, be intact and clearly separate from the ovary.
2. That the gestation sac definitely occupy a position on or encompassing the ovary.
3. That the sac be connected with the uterus by the tubal ovarian ligament.
4. That ovarian tissue be demonstrable in the walls of the sac.

Only where these four criteria are definite can a diagnosis of true ovarian pregnancy be made. The usual pre-operative diagnosis is tubal ectopic pregnancy, or an ovarian cyst with bleeding, or some like condition. Rarely, if ever, has a diagnosis of ovarian ectopic pregnancy been made pre-operatively, as the signs and symptoms are much the same as in tubal ectopic pregnancy.

In the reported case, and in some of the other cases previously reported, there are two findings which if kept in mind would possibly warrant a pre-operative diagnosis of ovarian pregnancy. These are:

1. Where there is a suspected ruptured ectopic pregnancy, but there is no uterine bleeding or spotting.
2. A suspected ectopic pregnancy where some type of pregnancy test has proven positive, such as a Carson-Saeks or Friedman's test.

It has been stated by various authors that the incidence of ovarian pregnancy is from 0.2 per cent to 1 per cent of all extra-uterine pregnancies. This obviously varies because of the small number reported, and also varies because of the inaccuracy of the diagnosis of a true ovarian pregnancy.

In the Ellensburg General Hospital, there were 1048 admissions for pregnancy in the five years, 1953-57 inclusive. Ninety of these were miscarriages, 6 were ectopic pregnancies and 949 were pregnancies at or near term. This makes a percentage of 0.6 per cent ectopic pregnancies, one of which was an ovarian ectopic pregnancy. The others were true tubal or mixed tubal ovarian ectopic pregnancies.

A thorough review of frequency of ovarian pregnancy and diagnosis of true ovarian pregnancy was made by Baden and Heins in 1951.[1] They reviewed 90 cases of primary ovarian pregnancy which adequately fulfilled the criteria of diagnosis as set down by Spiegelberg. There were 32 cases reported before 1940, and 58 cases, including those of Baden and Heins, through March 1, 1951, making a total of 90 cases.

A review of the literature since this report reveals that there have been 9 additional cases, including the present case, making an overall total of 99.

Courtiss[2] in 1942 reported a total of 125 ovarian pregnancies, but all these did not fulfill the criteria of Spiegelberg. Therefore, Baden and Heins' thorough review of the literature, showing only 90, is a more accurate estimate.

In view of the fact that only 9 cases have been

reported since 1951, and considering the fact that most hospitals now require routine pathologic reports on all tissue removed, one can only conclude that there are proportionately fewer cases of true ovarian pregnancies now than there have been in the past. No reasonable answer to this is forthcoming.

Types of True Ovarian Pregnancy

There are two types of ovarian pregnancy:

1. Primary ovarian pregnancy, which is divided into two parts:
   a. Intrafollicular.
   b. Extrafollicular.
2. Combined ovarian pregnancy. This includes those in which the pregnancy is attached to the ovary, but is also attached to the tube, the fimbria, the uterus, or other organs in the pelvis or abdominal cavity. It is not isolated to the ovary alone.

CASE REPORT

A 23 year old white female was first seen in the clinic July 31, 1957. She complained of severe nausea and vomiting, and stated she thought she was pregnant. Her last normal menstrual period was June 14, 1957, and previous normal menstruation was May 18, 1957.

Menstruation began at 13 years of age, with an interval of 27 days, duration 3 to 4 days, moderate amount, with two plus dysmenorrhea.

Patient had been married for two years, with no pregnancies having occurred.

Weight was 106 pounds. Blood pressure 140/90. Chest x-ray was negative. Examination of the pelvis revealed a clean, edematous cervix, with some slight cyanosis. There was no erosion. The uterus was about the size of a one-month pregnancy. The right ovary and tube were normal. Left ovary and tube were normal to palpation but the patient complained of some tenderness with examination of the left adnexa. Laboratory findings were as follows: hemoglobin 12.9 Gm. Blood type A, Rh positive. Kline was negative. White blood count was 10,000. Urinalysis was negative.

Patient was given 1 cc. polio vaccine at this time, and 1 cc. Gravidox in an attempt to control the nausea and vomiting.

Patient was seen again in the clinic on Aug. 3, 1957, complaining of intermittent abdominal pain which had been very severe during the previous night, and in the early morning.

Physical examination on this date revealed acute tenderness in the entire lower abdomen, not localized on either side. There was rebound tenderness but no rigidity or splinting.

Pelvic examination revealed a non-tender cervix, but increase in tenderness in the left lower quadrant in the adnexal region. Tenderness prevented adequate examination. No mass could be palpated.

Laboratory studies: White blood count was 10,000. Sedimentation rate, 10 mm. in 45 minutes. Hemoglobin was 11.6 Gm.

Diagnosis of possible ectopic pregnancy was made.

Patient was next seen on Aug. 5, 1957, when she was admitted to the Ellensburg General Hospital in excruciating pain. She was pale, very weak, perspiring profusely, unable to stand erect, and it was almost impossible for her to walk. Diagnosis of ruptured ectopic pregnancy was made. Examination on admission was negative except as follows: Blood pressure 128/80, pulse 120 per minute, respiration 26 per minute. The abdomen was flat and extremely tender to percussion and palpation, especially in the left lower quadrant, but also in the entire lower abdomen. There was no rebound tenderness or rigidity.

Examination of the pelvis: There was no uterine bleeding. The cervix was slightly tender. There was some tenderness of the uterus, marked tenderness in the left adnexal region and moderate tenderness on the right. The uterus was about the size of a six weeks' pregnancy. There was a questionable mass in the left adnexal region.

Laboratory studies: Hemoglobin was 9 Gm.; red blood count 3,730,000; white blood count 17,250. Sedimentation rate was 9 mm. in 45 minutes. The patient was crossmatched and 2 pints of blood were given (O, Rh positive)—one during surgery, and one following surgery.

Operative record: Pre-operative diagnosis: Left ruptured tubal ectopic pregnancy. Postoperative diagnosis: 1. Left ruptured ovarian ectopic pregnancy. 2. Left ovarian hemorrhagic cyst.

Approximately 2 pints of blood were found free in the abdominal cavity. Both tubes were normal. There was no dilatation and no evidence of inflammation. A hemorrhagic cyst involved one-half of the left ovary. The uterus was enlarged to approximately the size of a six weeks' pregnancy, and was soft. The hemorrhagic cyst was excised from the left ovary, leaving approximately one-half of the normal ovary intact. This raw surface was closed. The large blood clots were removed from the abdominal cavity, reducing the amount of blood by approximately 50 per cent. The wound was closed, and the patient made an uneventful recovery.

Pathologist's report: This tissue was mainly blood clot, but through it there were numerous placental villi of small size, and well defined trophoblastic epithelium over the surface. Some of these are of ghost type, but most of them are still existing and viable structures. Diagnosis: Ectopic pregnancy of the ovary.

Summary

1. Ninety-nine cases of true ectopic ovarian pregnancy have been reported, including the one presented in this paper.

2. The signs and symptoms of ovarian pregnancy are indistinguishable from those of tubal ectopic pregnancy in general, with two added possible criteria as aids to diagnosis:

   a. Uterine bleeding is usually not present in ovarian pregnancy.

   b. Some type of pregnancy test, either Carson-Saeks, or Friedman, is positive preoperatively.

Taylor-Richardson Clinic.

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Tolbutamide Compared to Insulin for Diabetic Control

HOWARD M. HACKEDORN, M.D.
SEATTLE, WASHINGTON

After three years of extensive clinical trials, tolbutamide has recently become available for general use. It has been most useful for the management of diabetes of the mature type, occurring in patients over 40 years of age whose disease is of relatively short duration and who require relatively small doses of insulin (less than 30 units).[1] The sulfonylureas, of which tolbutamide is the only one in clinical use at present, are not insulin substitutes, but hypoglycemic agents, capable of reducing the blood sugar in both normal and diabetic patients. Since they are not advocated for diabetic management in times of stress, such as infections, surgery and above all acidosis and coma, one naturally wonders whether they are genuinely helpful to diabetic patients for day-to-day control. A comparison of the course of action of the two substances would provide an evaluation of tolbutamide for prolonged diabetic care.

Factors that influence blood glucose[2] directly appear in figure 1. A is determined by the amount ingested glucose, the duration and effectiveness of intestinal digestion and the integrity of the intestinal mucosa. B depends upon a supply of hepatic glycogen of normal constitution and an intact enzyme system to convert glycogen to glucose. C and D depend critically upon insulin, the anterior pituitary growth hormone and possibly other anti-insulin agents. E depends upon the concentration of glucose in the blood and the activity of the enzyme structure of the renal tubule. In addition, there is the influence that endocrines exert upon each other, such as thyroid and adrenal cortex.

For purposes of this discussion it matters little whether insulin enhances cellular passage of glucose[3] or activates muscle hexokinase.[4] It is sufficient to say that insulin increases the quantity of intracellular glucose-6-phosphate at the

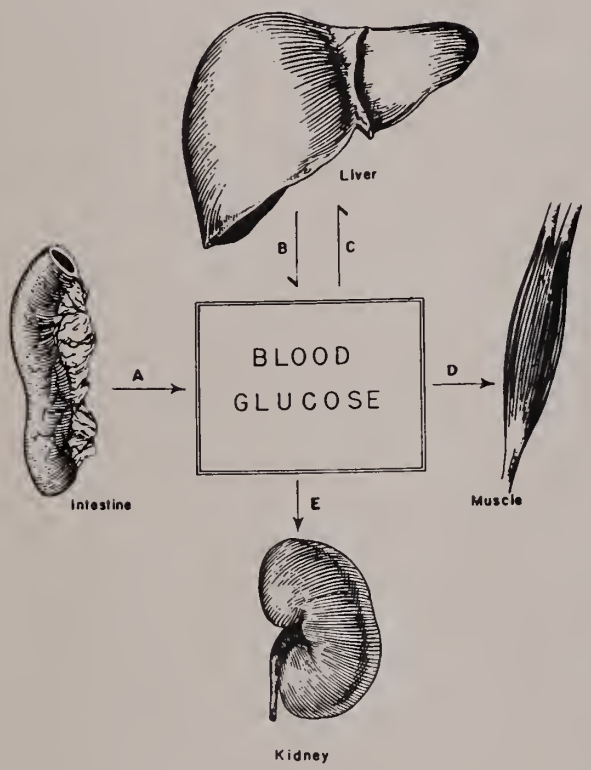


Fig. 1. Factors that influence blood glucose directly, (Reprinted from Currents in Biochemical Research 1956, David E. Green, Editor, page 172, by permission of Interscience Publishers, Inc., New York, 1956.)

expense of extracellular or plasma glucose. The initial formation of the glucose-phosphate ester proceeds by the catalytic action of adenosine triphosphate:

$$\text{Glucose} + \text{ATP} \rightarrow \text{Glucose-6-Phosphate} + \text{ADP}.$$

ATP and ADP refer to adenosine triphosphate and adenosine diphosphate, respectively.

In addition, insulin is necessary for incorporation of amino acids into protein[5] and fatty acids into fat,[6,7] although both are dependent on reac-

tions coupled to the energy developed from anaerobic (Emden-Myeroff cycle) and aerobic (Kreb's cycle) glycolysis.

At the cellular level of metabolism, glucose-6-phosphate is the keystone of carbohydrate intermediary metabolism, and from it four paths are available at respective rates[8] (Fig. 2). There is

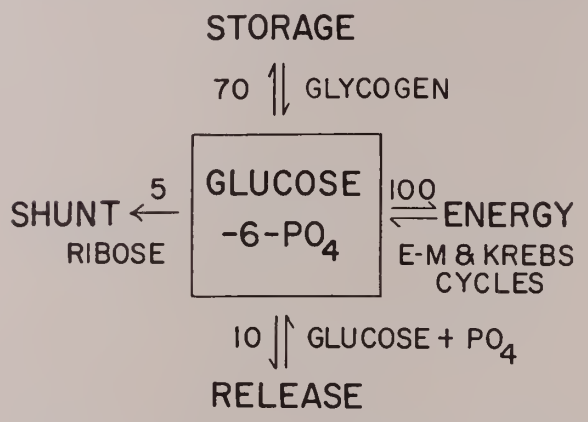


Fig. 2. At the cellular level of metabolism, glucose-6-phosphate is the keystone of carbohydrate intermediary metabolism and from it the four paths shown above are available.

the development of energy arbitrarily set at 100, the storage of glycogen at 70, the oxidative shunt for conversion of glucose into ribose at 5 and the release by hydrolysis to form free glucose at 10. It is generally agreed that the major effect of an insulin deficiency is the decrease in glucose utilization by such tissues as liver and muscle with impeded generation of glucose-6-phosphate. This reduces the formation of products encountered along the Energy Path (pyruvate, acetate and CO_2) and also reduces the formation of glycogen in both liver and muscle. Other reactions, coupled to those of glycolysis less directly, such as protein synthesis and fat synthesis are also retarded. These effects are all reversed by administration of insulin.

In contrast to these multiple cellular and tissue effects, tolbutamide primarily involves a single phase of carbohydrate intermediary metabolism, suppressing the rate of liver glycogen breakdown, a single source of glucose-6-phosphate and blood glucose.[9-11] There is reduction in the rate of conversion of glycogen to glucose-6-phosphate (Fig. 2). Although direct pancreatic stimulation by tolbutamide exhibits a hypoglycemic response suggesting an increase in circulating insulin,[12] C^{14} -glucose studies do not show incorporation into liver and muscle glycogen and depot fat that occurs with insulin.

Tolbutamide does not facilitate glucose utilization. It does not directly influence other hormones except the hypoglycemic effect of insulin, nor do other hormones affect it. It is not an insulin substitute and one would wish to determine its ultimate value in diabetic management, because disturbances in fat and protein metabolism, as well as carbohydrate metabolism, are significant defects of the disease. Clinically we measure only hyperglycemia and ketosis, yet we know both protein and fat metabolism are profoundly affected by insulin and lack of it. While tolbutamide is controlling the hyperglycemia, one earnestly wonders if there is simultaneously an impairment of the tissue fat and protein metabolism that will become manifest after prolonged therapy.

Will there be disturbances in depot fat tissue, accelerated atherosclerosis, defective tissue structures leading to collagen disease, cataracts or cardiovascular changes? One might well keep in mind the possibility that the control of hyperglycemia alone might be a screen that prevents effective observation of more profound tissue changes occurring in the continued absence of adequate insulin supplies. Therefore these patients treated with tolbutamide alone should continue to have regular and careful surveys with these possibilities clearly in mind.•

1534 Medical-Dental Bldg. (1).

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Clinical Pathologic Conference

PROVIDENCE HOSPITAL, PORTLAND, OREGON

Prepared under direction of Jeff Minckler, M.D.

Protocol

Jeff Minckler: This white male patient, aged 75 years, was admitted to Providence Hospital Aug. 20, 1956 with a chief complaint of abdominal pain. He was last well about two years before at which time he developed deep mid-abdominal ache which radiated up the midline and into his throat and frequently radiated straight through to his back. In December 1955, the pain became more severe and he began to vomit feedings of solid food, but was able to retain liquids. The pain has since been intermittent in nature, not associated with meals or particular types of food and is somewhat relieved by vomiting. The emesis has never contained blood or coffee-ground material, but consistently has been "green bile." There has been a 50-pound weight loss in the past two years and much loss of strength. For the past year he has had frequent bouts of constipation relieved by mineral oil. Alternating with the constipation have been bouts of diarrhea. His stools have been for the most part light colored with an occasional normal brown color and have been of small diameter. The patient was hospitalized in December 1955, for a period of four days with the same complaints. He was treated for pain and received much relief. At this time the patient and family had refused an exploratory laparotomy and the patient returned home on Dec. 13, 1955 for further observation.

Aside from frequent dryness of the mouth, history of the EENT was non-contributory. The patient had had pneumonia in 1918 and had experienced exertional dyspnea, occasional cough and occasional night sweats over the past two years. Other than the information in the present illness, there was no gastrointestinal history of significance; and jaundice, melena, or bright blood in the stools were excluded specifically. The patient had experienced occasional trouble in starting his stream; otherwise, the genitourinary history was negative. He had complained of "no feeling in legs" and unsteady gait for the past seven months, and he described "knobs" in his calves during the same period. Drug history is negative. He took occasional alcoholic drinks and was a non-smoker. His past illnesses were few and were described as limited to the usual childhood diseases with the exception of hospitalization for excision of anal fistula in 1954. Both the father and mother had died of old age with the age uncertain. He had 12 siblings—6 brothers and 6 sisters—with 3 of the brothers and 2 of the sisters having died of unknown causes.

Physical examination on first admission, Dec. 9, 1955: Chest examination revealed nothing distinctive. Blood presure was 110/60, pulse 72 and respirations 16. The patient looked his age of 74 and appeared poorly nourished. His skin was dry, inelastic and loose. The external ocular muscles functioned properly. The pupils were round and equal and responded to light and accommodation. The fundi revealed minimal arteriosclerotic changes. The ears, nose and neck were not remarkable. The lips were pink and moist. The patient had complete dentures. No nodes were palpable. The liver, spleen and kidneys were not palpable. There were no palpable masses and no tenderness could be elicited in the abdomen. Bowel sounds were present and of normal character. The prostate was not enlarged and no abnormal masses were identified on digital rectal examination. A small amount of light brown stool returned on the glove. The external genitalia were those of an adult male. The extremities were wasted; otherwise they were normal in appearance and reactivity. The reflexes tested were physiologic and examination of cranial nerves revealed no abnormality. Blood examination on this admission revealed hemo-

globin 9.68 Gm., red blood cells 3.98, white blood cells 6,800, with 50 neutrophils, 6 bands, 42 lymphocytes and 2 monocytes. Sedimentation rate was 23 mm. in 15 minutes and 100 mm. in 45 minutes. Serum amylase was recorded as 20 units. The Kahn test gave a negative reaction. Urine examination revealed a yellow, clear, acid urine with a specific gravity of 1.013 and occasional pus cells; otherwise it was negative. Glucose tolerance test revealed negative urines in all samples, fasting blood sugar of 98 with 114 in one-half hour, 120 in one hour, 125 in two hours and 120 in three hours. Icteric index was 7.3 and blood urea nitrogen 11.1.

Physical examination on second admission, Aug. 21, 1956: The patient returned to the hospital with essentially the same complaints and presenting as an emaciated 75 year old in no apparent distress. The skin was pale and presented minimal icterus. The admitting blood pressure was 102/68, pulse 76 and respirations 16. Physical examination revealed the following in addition to the findings in the initial admission. The thorax exhibited increased anteroposterior diameter with some impaired resonance at the bases posteriorly. The heart sounds were distinct and there were no murmurs or thrills. The abdomen was flat. The liver edge lay at the rib margin and was non-tender. The spleen was not palpable. There was questionable fullness in the epigastrium with some discomfort in this area to deep palpation. Rectal examination again revealed light brown stool clinging to the rectal glove. There was no abnormality to palpation. Neuromuscular examination revealed slight calf tenderness bilaterally with deep tendon reflexes present and equal bilaterally. Vibratory sense was lost below the knees bilaterally. Tactile sensation was grossly normal. Laboratory findings on Aug. 21, 1956 revealed the following: Hemoglobin 8.39 Gm., red cells 3.03, white cells 9,700 with 70 neutrophils, no bands, 4 eosinophiles, 26 lymphocytes, and no monocytes. Sedimentation rate was 48 mm. in 15 minutes and 122 mm. in 45 minutes. Urine examination revealed yellow, clear, acid urine with a specific gravity of 1.010 at one plus albumin. Icterus index was 2.6, serum sodium 136 mEq. and serum potassium 3.9 mEq. There was four plus occult blood in the stool. Total eosinophile count was 0. Histamine gastric analysis on the fourth postoperative day revealed no free hydrochloric acid in any specimen with titratable acidity of 112 in the fasting specimen, 28 in the 20 minute and 20 in the 30 minute specimens. Three plus, four plus and 4 plus occult blood tests were found in these gastric specimens, respectively. Electrocardiographic examination on Aug. 22, 1956 revealed left axis deviation, horizontal position, left bundle branch block and myocardial damage. There was little change in the second EKG determined on Sept. 6, 1956.

X-ray examination of the chest on Aug. 21, 1956 revealed pressure atelectasis of the bases of both lungs with the lungs otherwise clear. The aorta was widened and increased in density. The heart was normal in outline. No fluid was identified. An abdominal plate on the same day revealed no free gas in the abdominal cavity. There was no fluid level in the small bowel. There was a large amount of gas and fecal matter in the ascending and transverse colon, so that the suggestion of a large bowel obstruction must be considered, along with the possibility of a paralytic ileus.

On Aug. 30, 1956, the test for Bence-Jones protein in the urine was negative, and on Sept. 2, 1956 the urine exhibited four plus albumin with pus and bacteria. Blood study at this time revealed hemoglobin 11.62 Gm., 3.9 red cells, 7,600 white cells with 74 neutrophils, 12 bands, 1 eosinophil, 12 lymphocytes and 1 monocyte. Sedimentation rate on this date was recorded as 8 mm. in 15 minutes and 45 mm. in 45 minutes. Bone marrow aspiration was done on Aug. 30, 1956. It was negative for blood dyscrasia or neoplasm and was in no way remarkable. On Sept. 1, 1956 Rumpel-Leede test was negative; Lee-White 5 minutes, 30 seconds; bleeding time 1 minute, 30 seconds; prothrombin 82 per cent. On Aug. 30, 1956 the patient's serum calcium was 9.4, serum protein 5.4 with an albumin-globulin ratio of 2.25/3.15. On Sept. 3, 1956 (three days postoperative) the total eosinophil count before ACTH (40 units) was 66 and four hours following was 22.

During the period from Aug. 20, 1956 to Aug. 30, 1956, the patient remained fairly comfortable and required nothing for pain. He ate fairly well, although he had occasional emesis of undigested food particles following meals. He also had one or two loose or soft, light brown to clay-colored stools on two occasions in this interval. Twice during this period, portions of the stool were formed. During this period, 2 units of blood were administered.

X-ray of the stomach on Aug. 27, 1956 with a small amount of barium revealed some narrowing of the antrum of the stomach, which was not considered to be organic. A moderate-sized sliding hiatal hernia had been noted in November 1955. The duodenum was dilated and the passage of the barium through the intestine was very slow. The duodenal loop did not appear to be displaced or abnormal, only dilated. A colon examination on the next day revealed a redundant atonic bowel filled with gas and fecal matter. Only the distal half filled. Several diverticula were identified. No obstruction was found. There was good emptying. The stomach was noted to be filled with gas.

An exploratory laparotomy was performed on Aug. 31, 1956. No disease was detected except for a dilated redundant colon with associated dilatation of the distal ileum for about 2 feet. There were areas where the peritoneum seemed to tear extremely easily and hematomas developed. The patient tolerated the procedure well and the immediate postoperative course was satisfactory. Two units of blood were administered.

On Sept. 3, 1956 the patient became confused during the night, got out of bed and stated that he had fallen and hit his head. Examination at the time was negative. There were beginning decubitus ulcers over the lower sacrum. The patient had become incoherent. His appetite and oral intake were poor. A Levin tube was inserted and Calorigen started by nasal drip. On Sept. 4, 1956, 25 mg. cortisone was started every six hours. The patient failed to respond to painful stimuli. The condition remained the same for the next three days. Much thick tracheal mucus was aspirated. He was digitalized on Sept. 6, 1956. Penicillin 300,000 units every four hours and Combiotic 2 cc. every eight hours were started. On Sept. 8, 1956 the patient again became responsive to painful stimulation and attempted to talk. Blood urea nitrogen at this time was 37.2, serum sodium 117 mEq. A portable chest x-ray on this date revealed blunting of both costophrenic angles from a small amount of fluid and atelectasis at the bases of both lungs with some passive congestion. The cardiac shadow was aortic in type, not enlarged. The aorta was moderately widened and elongated. On Sept. 9, 1956, the patient responded readily and was talking much better, but suddenly became cyanotic at 12:30 P.M. Mucus could not be reached by suction. He died at 1:00 P.M.

Discussion

Dr. Minckler: I should like to hear additional commentary from the gentlemen who saw the patient. Dr. Hardiman, can you add anything?

John A. Hardiman: A point not included in the protocol was the unusual brown coloration of this patient's skin on the exposed parts. This appeared to me to be unusual enough to deserve special mention.

Dr. Minckler: Dr. Blanchard, do you have any additional comments?

John A. Blanchard: I have nothing to add, except to admit that I thought this patient had carcinoma of the pancreas and that this justified the exploratory procedure. We were, in fact, quite surprised to find nothing of consequence during the laparotomy and I am relieved to report that we requested a pathologist to review the abdominal cavity at the time of surgery and received concurrence in the negative findings.

Dr. Minckler: Dr. Gambee, do you have any additional apology for your part in operating on this patient?

Louis P. Gambee: The operative procedure was completely uneventful and we found nothing in the way of a clue as to the basic disease in this case.

Dr. Minckler: As there is no further pertinent commentary, it is a pleasure to call upon our distinguished visitor from Astoria for his criticism of this work-up and for his differential and diagnosis. Dr. Straumfjord.

Jon V. Straumfjord: As usual, I have the feeling that the critical features of this patient's record have been purposely left out of the protocol. I would like to know, for example, whether the patient had any fever.

Dr. Minckler: Here is the temperature chart. There appears to be an ordinary variation within normal range from 98 F. to 99 F. during this hospital stay.

Dr. Straumfjord: I also note a gap in the story

of some eight months. What happened to the patient during this interval?

Dr. Hardiman: The patient was not seen by myself during this time. He was, however, seen by George Long in April 1956. After his first admission he had lost weight to 122 pounds and then had regained weight to 152 pounds. In May 1956, the last time seen by Dr. Long, he was feeling fairly well but had diarrhea almost daily and the type of food did not seem to make any difference. Dr. Long had by that time lost interest in the diagnosis of carcinoma of the pancreas.

Dr. Straumfjord: Since I propose to come up with the correct answer in this case, it is obvious that I had to seek other than the usual means to arrive at the diagnosis. Both my son and Dr. Minckler's are second-year medical students and have discussed this case with Dr. Minckler. While not divulging the answer directly, they were quizzed very carefully on the case by me in Dr. Minckler's presence and I took close observation of the doctor's mannerisms during their discourse. I find the gait, the brow-pattern, angle of the jaw and the general facial expression of the pathologist during such conversations reliable guides to diagnoses. Consequently, armed with this information, I can rush very pointedly to an accurate conclusion in this case.

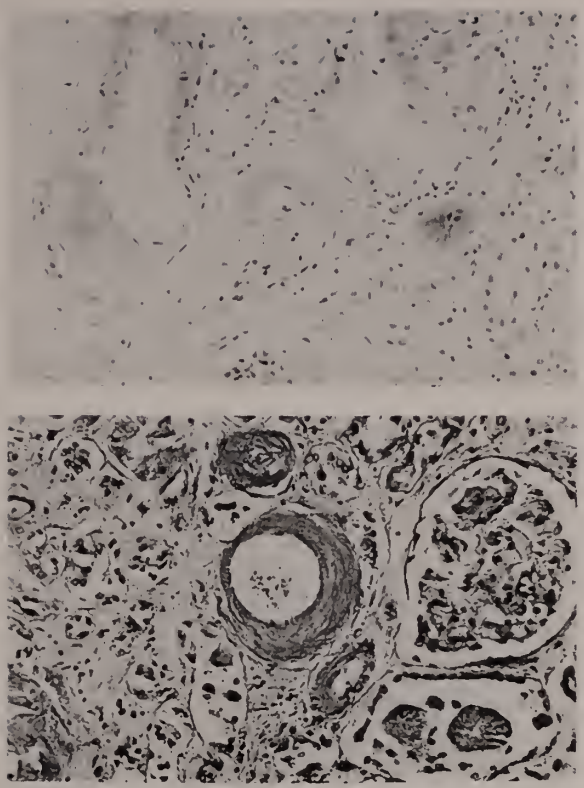
Dr. Minckler: It is a very real pleasure to learn, at long last, the stuff upon which an internist's acumen is based. This does seem more reliable than their usual mumbo-jumbo.

Dr. Straumfjord: This 75 year old man, whose death occurred nine days after an abdominal exploratory operation, had complained of abdominal distress, nausea, vomiting, constipation with periods of diarrhea, weakness, dizziness, nervousness, numbness in his feet and unsteady gait. He lost weight from a normal 175 pounds to 122 pounds, followed by a gain to about 150 pounds four months before death and then loss to 115 pounds. Physical examination was nonrevealing except for minor changes, such as basilar rales, arteriosclerotic changes in his fundi and loss of vibratory sense in his feet. He had anemia, achlorhydria, left bundle branch block and electrocardiographic changes of diffuse myocardial damage, sliding hiatal hernia, dilatation of the colon and terminal 2 feet of ileum. Postoperatively he had confusion and restlessness which cleared after digitalization and cortisone. Marked respiratory difficulty was present with thick mucus in trachea, terminally elevated blood urea nitrogen and depressed serum sodium. Urinary output was adequate but urine contained four plus albumin on the second postoperative day. Death followed cyanosis apparently due to mucus in trachea.

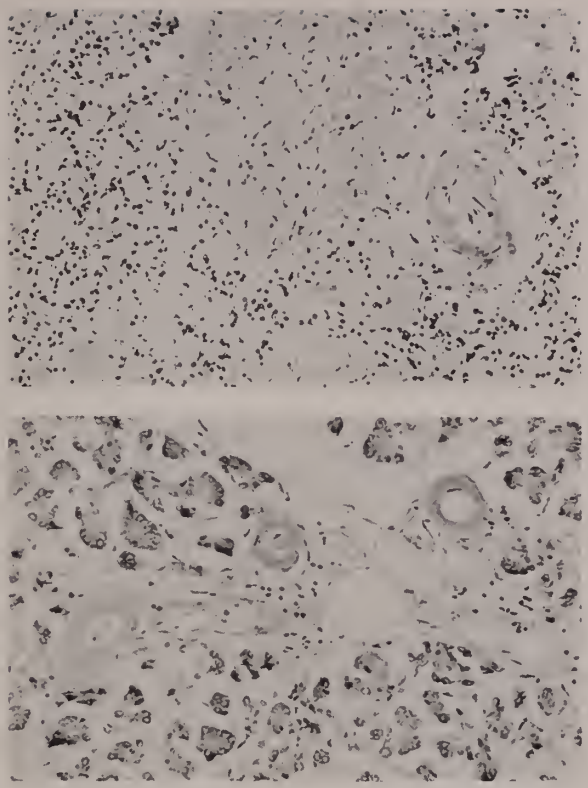
Adrenal insufficiency is unlikely although the patient had increased pigmentation of the exposed skin surfaces, anemia, weight loss, weakness, gastrointestinal symptoms, restlessness and irritability, and terminal depression of the serum sodium levels. But his heart was not small, and he did not develop hypotension. Lymphocytosis was not noted except on Dec. 9, 1955, when his lymphocyte count was 42 per cent and eosinophile count was 8 per cent. His response to ACTH was normal and there was no evidence of tuberculosis. The presence of malignancy is fairly well eliminated by the examination, the course and the exploratory inspection. Nutritional inadequacy such as that of vitamin B deficiency might be considered. He had minimal signs in his feet, vomiting and diarrhea. But his heart was not dilated and he had no edema and his diet was not unusual.

This man seems to have suffered from some widespread disease such as primary amyloidosis or collagen disease. Perhaps the death of 5 out of 12 siblings from unknown causes is significant in this connection. I see nothing in this man's story that makes it possible for me to rule out primary amyloidosis but it is so rare that statistically it would seem unwise to settle on this diagnosis. (Here the discussant failed to follow his previously indicated method of observation of the pathologist. He was too intent upon his discussion.)

I believe that systemic lupus erythematosus is the most likely disease. The gastrointestinal symptoms, the weakness, the weight loss and the cerebral symptoms, the anemia, lowered albumin and the presence of globulin more than 3 Gm., the absence of leucocytosis, the high sedimentation rate, the paresthesia in his legs, and his pulmonary and cardiac findings are consistent with this diagnosis. He is older than most patients with lupus but it has been reported in older patients. Absence of the characteristic skin changes does not rule it out. The absence of joint symptoms and fever is against it. But the man had some widespread disease and I am go-



Top: Congo red stain showing perivascular concentration of amyloid in renal vessels (x70). Bottom: H & E illustrating density of amyloid deposit in major vessels and in glomerular tufts (x70).



Top: Diffuse amyloid deposit in lymph node (Congo red) (x70). Bottom: Perivascular amyloid in pancreas (x70).

ing to stick my neck out for *systemic lupus erythematosus*. It would be helpful to have an electrophoretic separation of proteins. Was the serum electrophoretic pattern determined in this case? It was not included in the protocol given to me.

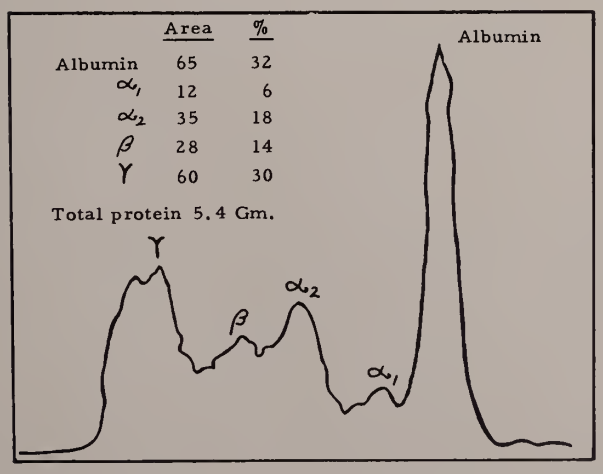


Fig. 1. *Impression*: No gross abnormality seen in this protein electrophoresis.

Dr. Minckler: This was done but unfortunately was missed in the protocol. This was not intentional and I regret that Dr. Straumfjord can now say that a critical feature of this patient's record was in fact left out. Here is the electrophoretic pattern graph. The values are included in figure 1, and the pattern was interpreted as in the range of normal distribution.

Dr. Straumfjord: I think this is an important omission for Rukavina *et al.*[1] have reported that there is an atypical peak in the free electrophoretic pattern associated with α_2 designated by them α'_2, in patients with primary amyloidosis. Although paper electrophoresis does not show enough resolution to demonstrate this peak, I think it is noteworthy that in this electrophoretic pattern α_2 is very significantly elevated (.97 Gm.—normal 0.55 ± 0.08). I do not know whether this does occur in lupus also but Rukavina feels that the presence of α'_2 is of diagnostic value in primary amyloidosis. I would question the interpretation of

the curve as presented. Perhaps the pathologist can clarify this in his analysis.

Conclusion

Dr. Minckler: Once again the discussant has deprived the pathologist of his one remaining simple pleasure—that of an original diagnostic pronouncement at a CPC.

The diagnostic summary in this case is as follows:

1. *Amyloidosis*—universal (atypical or primary).
2. *Bronchopneumonia*—bilateral—terminal.
3. *Operation*—exploratory laparotomy.
4. *Incidental findings* — generalized gastrointestinal distention, diverticulosis of colon, retention cysts of left kidney, encephalomalacia (minimal), emphysema (moderate, bilateral), coronary sclerosis (mild).

Until Dr. Straumfjord's comment, we had regarded the electrophoretic separation as normal. It is my understanding that it is essential to establish a distribution curve for each instrumentation. Certainly, we have had real trouble in learning definite distribution values from graphs supplied as guides. I wish to thank him for this suggestion.

A striking feature in this patient is the remarkably ubiquitous distribution of the amyloid deposits, qualifying the case as one of atypical type unrelated to an associated disease and exhibiting bizarre distribution of the deposits. It is regretted that the index of suspicion clinically was too low to do a congo red test which remains a reliable, although not absolute, indication to the existence of amyloidosis (80 per cent of cases characteristically show less than 40 per cent of the dye retained in the blood stream after 65 minutes).

If there are no further comments the case is closed with additional thanks to Dr. Straumfjord for his erudite discussion. •

Reference

1. Rukavina, J. G., Block, W. D., Jackson, C. E., Falls, H. F., Carey, J. G., Curtis, A. C., Primary systemic amyloidosis: a review and an experimental, genetic, and clinical study of 29 cases with particular emphasis on the familial form, Medicine 35:239-334, (Sept.) 1956.

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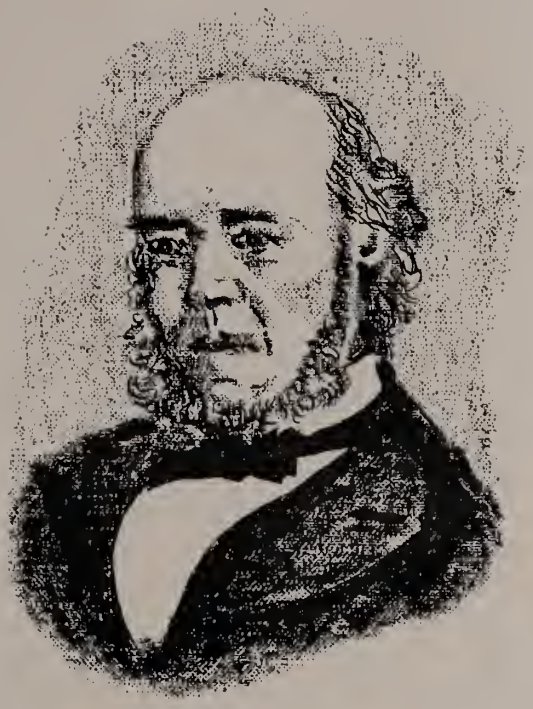


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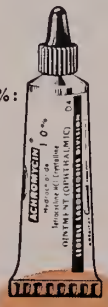
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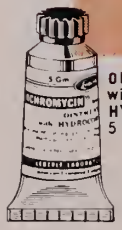


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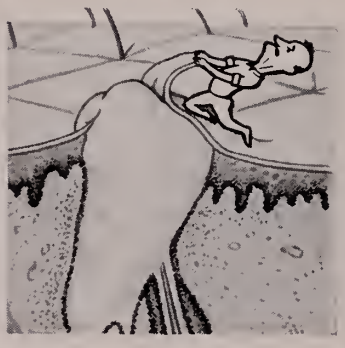


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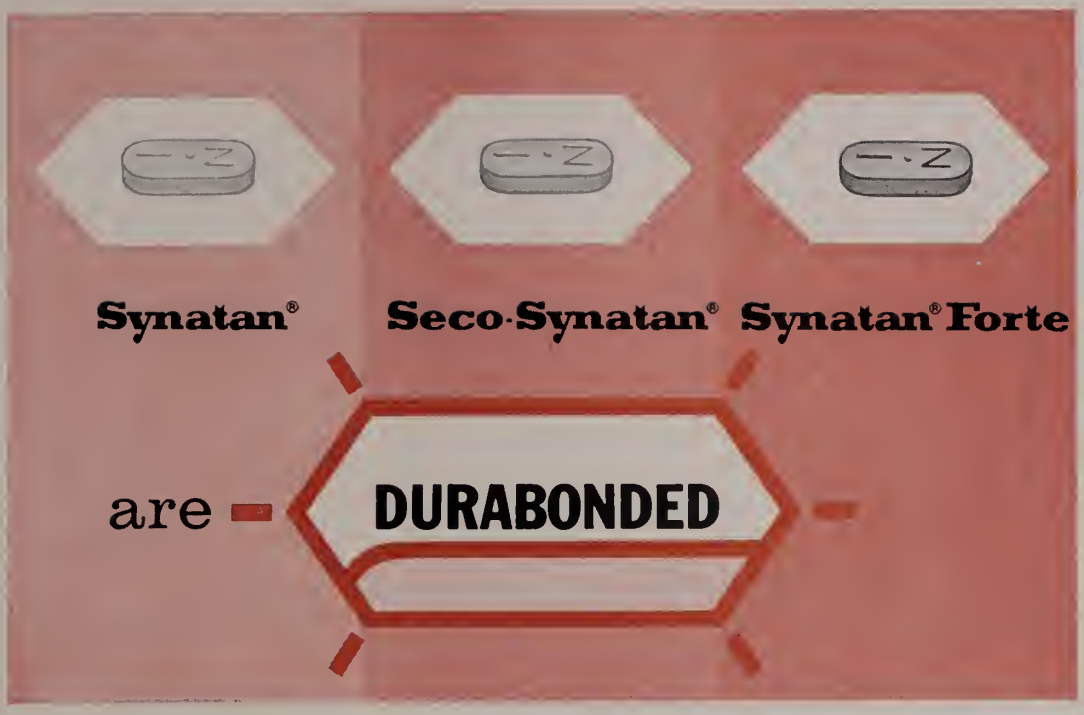
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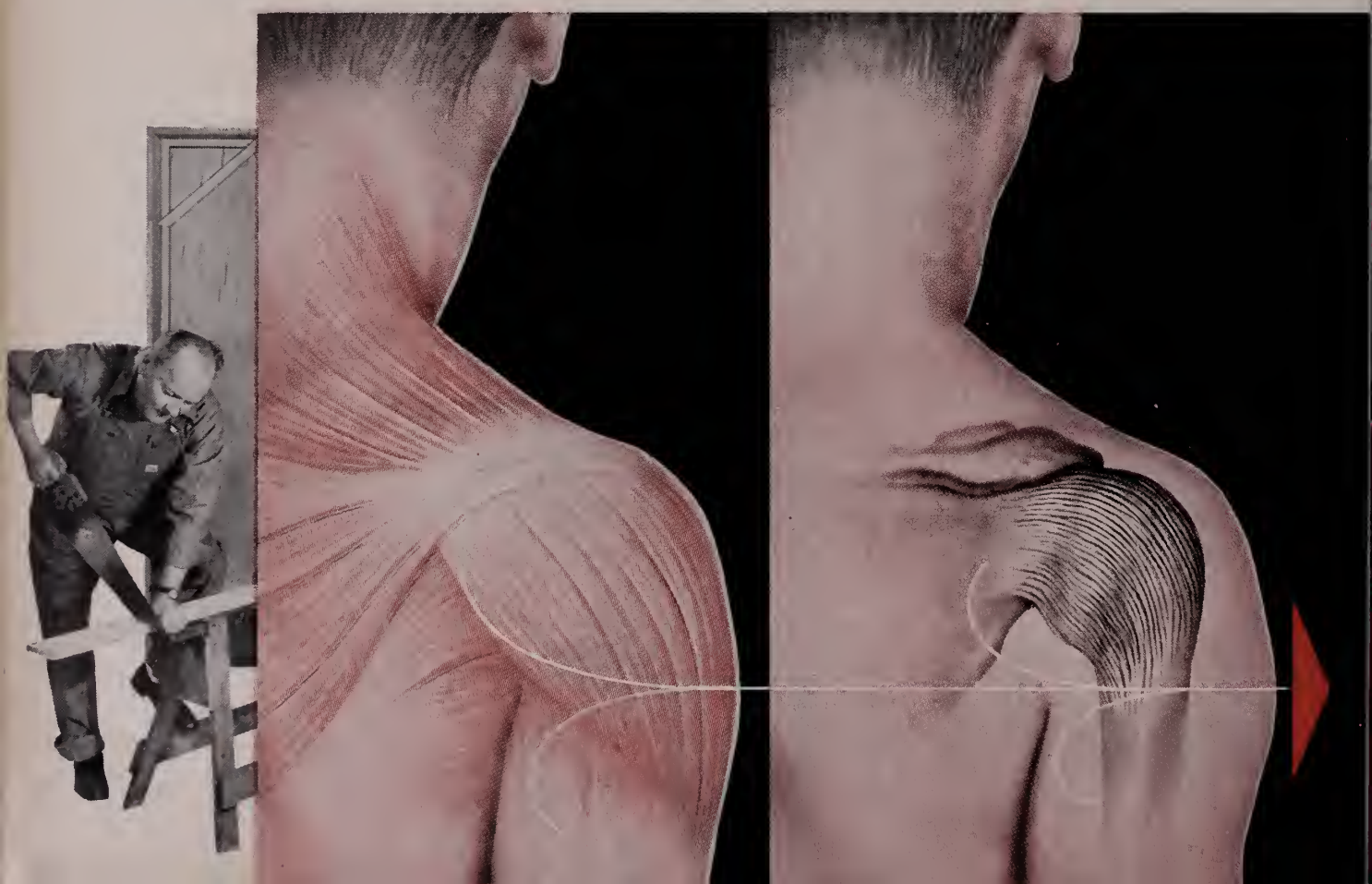
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*Rest, Edward J., and Todd, Wilbert R., Textbook of Biochemistry, 2nd Ed. (New York, Macmillan, 1955), p. 522; p. 1074-5.





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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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ANNUAL MEETING
September 3-5, 1958
Portland

President, Vern W. Miller, M.D., Salem
Secretary-Treasurer, Max H. Parrott, M.D., Portland
Executive Secretary, Mr. Roscoe Miller, Portland

1958 NEW MEMBER INSTITUTE

On April 19, a group of 36 members, residents and interns attended the 1958 New Member Institute held in Portland under direction of Oregon State Medical Society's Committee on Public Relations. Lee Thompson of Beaverton, chairman of the Committee on Public Relations, served as chairman of the day for this first Institute held under a new Society provision which requires all members to attend within the first two years of membership. In addition to the chairman's timely remarks there were four excellent papers by leading members of the Society. Condensations of two of these papers are printed below. The other speakers were Herman A. Dickel, president-elect, who spoke on The Background and Significance of Medical Ethics, and George B. Long, a member of the Committee on Professional Consultation, who presented a talk entitled The Malpractice Claim—An Ever-Present Danger. Dr. Dickel's remarks will be carried in a future issue. Ed.

What Is the State Medical Society and What Are Its Purposes?

VERN W. MILLER, M.D.*
SALEM, OREGON

Oregon State Medical Society is a federation of the 25 local county and district medical societies in Oregon and brings together into one compact organization the entire ethical medical profession in our State. It unites with similar organizations in other states and territories of the United States to form the American Medical Association. Promotion of the science and art of medicine, advancement of medical education and knowledge and promotion of the welfare of its individual members and of the medical profession, generally, are its paramount purposes.



VERN W. MILLER, M.D.

The Society is a representative organization. Its officers and the members of its policy-forming bodies are chosen in a manner which gives the individual wide opportunity to participate in their selection. Moreover, during recent years, the structure of the Society has been revised to provide the individual member with increasing opportunity to express his views on Society affairs.

Affiliation with Organized Medicine

Affiliation with organized medicine begins with election to membership in the local medical society which is the judge of a physician's qualifications for such affiliation.

Having been elected by the local medical society, commonly referred to as the component society, the new physician then may complete his affiliation with the Oregon State Medical Society by paying the annual dues for the class of membership to which he is eligible. He then may take advantage of the benefits and privileges it offers.

The next step is membership in the American Medical Association which is attained by paying the Association's annual dues for which the member is billed along with State Society dues.

The AMA

The American Medical Association, our national organization composed of constituent state and territorial

(Continued on page 776)

*President, Oregon State Medical Society.

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1. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. *6*:580 (April) 1955.
2. Codling, J. W., and Lowden, R. J.: Northwest Med. *57*:331 (March) 1958.



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(Continued from page 773)

societies, is operated by a Board of Trustees elected by its House of Delegates on an area representative basis. Some thought is being given to establishment of Trustee districts to assure that the area representation among the nine Trustees is maintained. There is some merit to this suggestion.

Policies of AMA are made by the House of Delegates which meets twice annually. This body is composed of delegates elected by the various state and territorial societies on a physician-population basis—1 delegate for each 1,000 members. Oregon, on this basis, has two delegates: A. O. Pitman of Hillsboro and E. G. Chuinard of Portland. Our alternates are: W. W. Baum of Salem and John G. P. Cleland of Oregon City.

We mention here with great pride that one of the nine Trustees of AMA is a member of the Oregon State Medical Society—Raymond M. McKeown of Coos Bay. Dr. McKeown was a delegate for 10 years. His excellent work as our delegate was rewarded by election as Trustee last June.

Actual routine business of AMA is performed by an extensive administration organization at the headquarters office in Chicago and legislative office in Washington, D. C.

In the packet which you have received is a phamphlet entitled "It's Your AMA." I suggest that you read it carefully. The achievements of AMA will make you proud to be a part of it. Its work in behalf of the "Advancement of the art and science of medicine and the improvement of the public health" represents an unparalleled contribution to our national health and welfare. ("It's Your AMA" is available on request to the Society headquarters office.)

Organization of OSMS

Now, let's take a quick look at our Oregon State Medical Society.

It is an organization made up of 1,825 licensed physicians and still growing rapidly. These 1,825 doctors are grouped together in 25 component medical societies throughout the State, varying in size from Lake County with 5 members to Multnomah County with 900 members.

These component societies are federated to form the Oregon State Medical Society. Policies are made by the House of Delegates which meets annually, or oftener if necessary. This body is composed of delegates elected by the component societies on a physician-population basis, the officers and Councilors and the Society's past-presidents. The Council, which does the routine business of the Society and can make policy between meetings of the House of Delegates, meets monthly. Its membership is the officers of the Society and the Councilors who are elected from the various councilor districts, 13 in number.

Then, there is an Executive Committee of the Council which has certain duties which I will not enumerate. The Committee consists of the officers of the Society and two additional members elected by the Council. The officers of the Society are: The president; the vice-president, William Holford, Klamath Falls; president-elect, Herman Dickel, Portland; immediate past-president, Russell H. Kaufman, Portland; speaker of the house of delegates, Blair Henningsgaard, Astoria; and secretary-treasurer, Max H. Parrott, Portland.

The Society has 24 standing committees, 25 special committees and 6 special representatives to various agencies and governmental organizations which study an enormous number of problems and report their recommendations to the Council or House of Delegates for action.

There is an administrative headquarters in the Medical Dental Building in Portland. Mr. Roscoe K. Miller is our Executive Secretary. He has a staff of four persons. The Society also has available a legal counsel, Mr. John J. Coughlin of Portland, and a legislative counsel, Mr. John P. Misko, of Oregon City.

Purposes of the State Society

What is the purpose of the State Medical Society? It is twofold. First, to study the problems of a rapidly changing society as it relates to the profession, the public welfare and the public health, and to act as the voice of the profession in attempting to influence these changes in accordance with the beliefs of the majority of its members. This is done in order to produce the best environment in which the physician may practice his profession.

Second, to serve the individual physician in a multitude of ways—for example, it will provide information as to opportunities for locations in which to practice, and it will provide information as to the many problems facing practicing physicians—from problems relating to malpractice insurance to regulations with regard to the size of the letters and text on the nameplate on your office, the latter being a regulation of the State Board of Medical Examiners. It is safe to say that every phase of your professional life—from ethics to economics—is directly affected by the action of your Society. You name it and I will tell you how.

Now, the membership of the organization is assigning these jobs to their Society. Are we doing the job well? Are we keeping up with the rapidly changing times? And are we adequately voicing the majority of opinion of our members? Are our members keeping informed so that their majority opinion will reflect their best judgment? What are our assets in this task? Practically the only asset is 1,825 of the best minds in the State. This represents a minority group as compared to the population but one which potentially has a great influence.

We have the organization, and we know its purposes. How can we best go about the job?

How the Job Is Being Done

The most important thing is that our 1,825 well-informed and above average minds in 25 component societies should apply themselves to the problem and take an interest in their business. If they do not attend to it, someone else will and you will have no one to blame but yourself if it is not done according to your wishes. How do you do this? You cannot all be presidents. The one essential, in my opinion, is that you attend your society's meetings and make your vote known. You must elect the best possible representatives and officers and then actively support the majority opinion. If you do not exercise your right to vote in

Society affairs you are neglecting your business, and if you do not have an opportunity to vote you ought to be making some changes.

What is the Society doing about this?

1. We are attempting to keep the membership informed by publications; this could be improved.

2. We are urging the delegates and councilors to keep the local societies informed as to the matters considered in their respective organizations.

3. The officers are making component society visitations.

4. We are corresponding with our membership.

5. We are employing a legislative counsel to interpret to us matters coming before the State Legislature and Congress having to do with medical affairs and to properly interpret our opinions to the lawmakers.

6. Many commitees are doing an excellent job studying and recommending with regard to many problems. For example, the Public Policy Committee will be in action today; the Committee on Industrial Affairs is dealing with the Industrial Accident Commission with regard to the new fee schedule and rule changes; the Committee on Medical Education report will be given at the Council tonight.

We have a smoothly functioning executive headquarters and a good staff. You should take an opportunity to visit it.

You can readily see that to do all things touched upon above, the Society must be adequately financed. I am sure that you can see that you are getting a terrific bargain in service at your present dues. The Society is now adequately financed.

Conclusion

In general, I think you are doing a pretty fair job with your organization and my only real criticism is that too many members are taking the attitude, "let George do it." Well, George just might do it and get you in trouble.

I was a member of this Society for several years before I knew as much about the organization as you do now. This is at best, a sketch. I invite and urge you to make Society business your business—to learn more about your Society and to take an active interest in its affairs.•

Summary of Important Society Activities Which Affect You in Your Practice

David R. White, M.D.*
NORTH BEND, OREGON

Vern Miller, our president, in his opening remarks at this Institute emphasized that Oregon State Medical Society is the spokesman for its members and represents them in many aspects of the practice of medicine. It is our purpose this morning to summarize some of the areas in which Oregon State Medical Society has been particularly active and effective in establishing policies and developing programs which have been to the best interests not only of the practicing physician in our State but also for our individual patients and the citizens at large.



DAVID R. WHITE, M.D.

Public Health

Perhaps the first public service activity which Oregon State Medical Society undertook when it was organized in 1874 was an attack upon the low level of community health which existed in our State at that time. Early records of the Society carry almost continuous reference to the high incidence of communicable disease in all areas of the State and the, for all practical purposes, complete lack of sanitation. That these conditions should exist in such a newly populated area is only natural but it is to the credit of Oregon State Medical Society that it recognized the need for controlling these two aspects of personal and community health.

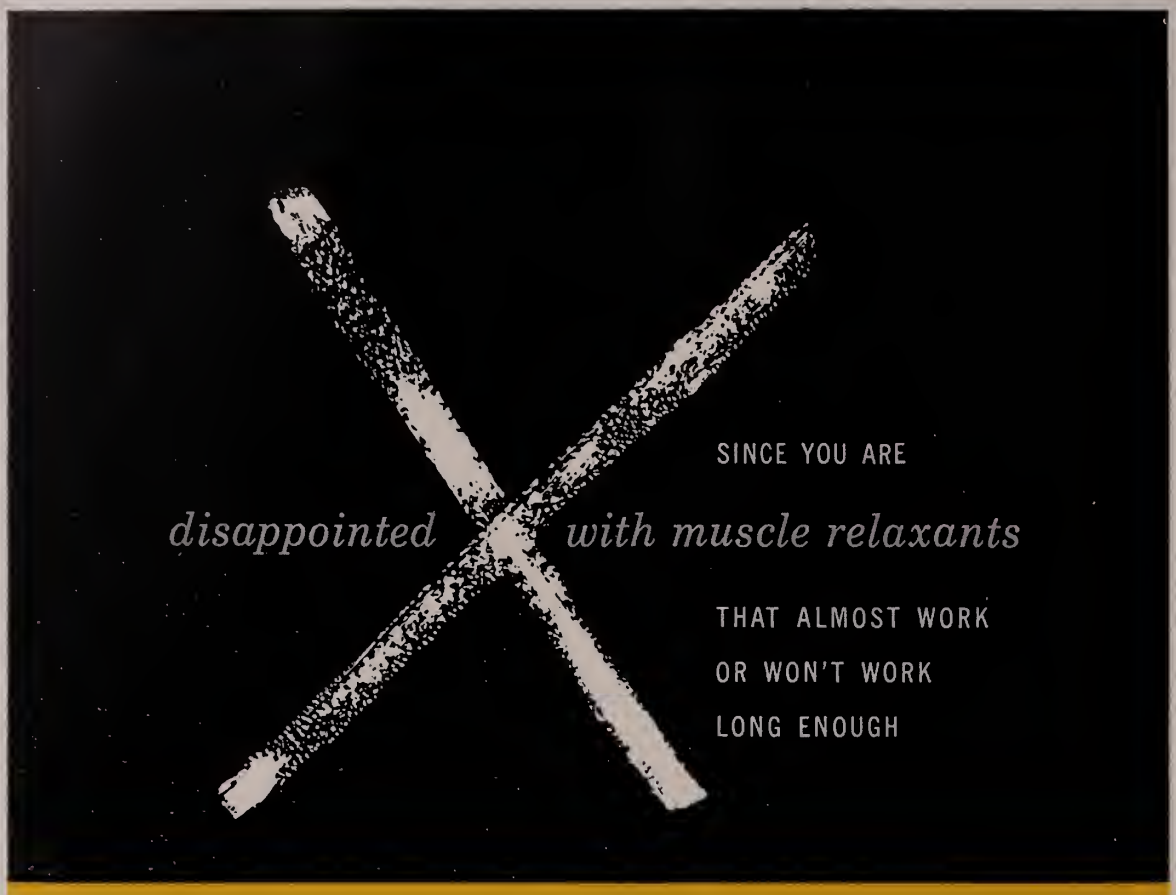
At the Society's second annual meeting in 1875 a resolution urging establishment of a State Board of Health was adopted and legislation to create such an agency was supported in the Oregon legislature of that year. The legislature, however, did not respond to the recommendations of the Society. The Society continued to press for establishment of an official Public Health authority at successive legislatures until 1903 when the law was finally enacted. It is interesting to note that the first act of the State Health Officer was to investigate an epidemic of smallpox in Shaniko located in Sherman County.

The control of communicable disease is perhaps one of the most important functions of the official public health agencies in our State. We, as physicians, are asked to report certain communicable diseases which we detect among our patients. Physicians often find this requirement to be a source of irritation. We must recognize, however, that a record of the incidence of communicable disease is an important aspect of control and therefore we should be cooperative. Oregon State Board of Health is currently conducting a number of pilot studies throughout the State to determine whether a more efficient and effective reporting procedure can be developed.

Sanitation is also an equally important phase of

(Continued on page 779)

*Member, Committee on Public Relations.



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(Continued from page 777)

the work of our State Board of Health and its local components.

The correction and compilation of vital statistics is an equally important function of our health departments. It is interesting to note that the birth and death certificates which are now used in Oregon have been developed by the Oregon State Board of Health in consultation with appropriate committees of the Society.

Harold M. Erickson, the State Health Officer, has always maintained the practice of consulting with the Oregon State Medical Society in all public health matters which involve the physician in private practice and moreover has strongly urged all local health officers to maintain a similar relationship with the local medical societies in his county or district.

The physician upon establishing his practice in Oregon will find it most helpful to make an early contact with his local health department to become familiar with the services which may be available to him as a physician in private practice and also to become familiar with all the laws and policies relating to public health which has a bearing upon the practice of medicine.

The Injured Workman

The Oregon State Industrial Accident Commission under the Workman's Compensation Act has broad powers relating to care of the injured workman. The Act vests in the Commission the authority to make rules and regulations for the "Purpose of supervision and control of medical and surgical services rendered injured workmen who are entitled to service under the provision of the Workman's Compensation Act." Under the provisions of this Act it would be legally possible for the Commission to designate the physicians who can render medical and surgical care to the injured workman and to contract directly with him for such services.

Very early, however, the Commission recognized that restriction of the care of injured workmen for which it was responsible to a limited panel of physicians was not in the best interests of the patient. Moreover, the Society has been insistent that free choice of physician apply in the care of the injured workman in the same manner that it does to the care of other patients.

For many years the State Industrial Accident Commission has been in consultation with the Oregon State Medical Society in developing its "Maximum Medical Fee Schedule" and the Rules and Regulations which it establishes for the administration of the medical aid program. This has been done through the Society's Committee on State Industrial Affairs.

The Commission's Fee Schedule and its Rules and Regulations have been subject to revision approximately every five years. As a matter of fact, a revision is now in progress. The current revision has, however, taken considerably more time than previous revisions because the Society's Committee on State Industrial Affairs recommended to the Commission that it adopt a Relative Value Schedule patterned after the Relative Value Schedule established by the California Medical Association. Due to the unusually long period required for completion of the final schedule, the Commission voluntarily increased their maximum medical fee schedule established on Feb. 1, 1952 by 20 per cent, effective Sept. 1, 1957. The Commission has advised that this voluntary 20 per cent increase will continue until the present discussions have been completed.

The revised Rules and Regulations have been completed and have been adopted by the Society and the Commission and will be placed in effect as soon as the appointment of the Medical Advisory Committee to the Commission, which is provided for in the new Rules and Regulations, has been selected and appointed. The new Rules and Regulations remove many of the objectionable and irritating limitations which the current Rules provide and engender. The newly created Medical Advisory Committee will provide a mechanism through which the physician may bring his problems relating to the care of the injured workman to the Commission, and of course in the reverse, the Commission may bring to the Medical Advisory Committee any misunderstandings which have developed between the Commission and the individual physician.

The new physician should, upon opening his practice, obtain the necessary information and material from the Accident Commission to enable him to treat injured workmen in accordance with the Commission's rules.

Public Assistance Patient

It is one of the time honored principles of the medical profession that a patient shall not be denied medical care because of inability to pay for the cost of the service.

This principle was re-enunciated by the Society in the early days of the depression when funds for medical care were provided by the 1933 Oregon Legislature through enactment of the State Relief Act. Being pressed by State officials to cooperate in the development of a program for the administration of medical aid to relief recipients, the Council adopted the policy that the physicians of Oregon would make their services available to welfare recipients at fees which would represent no more than the physician's "out of pocket" cost and that these services be rendered on a "free choice of physician" basis.

Although the fee schedule has been revised on several occasions it has always been maintained at a level which presumes to reimburse the physician for "out of pocket" costs. By virtue of this policy, physicians of Oregon have made a continuing contribution over the years to the community and to the State of many millions of dollars.

Copies of the latest revision of the Public Welfare Commission's "Maximum Fee Schedule for Services of Physicians and Surgeons" adopted on July 1, 1957 and the Rules and Regulations under which it is administered was distributed to every physician practicing in the State at the time of its adoption and is available upon request to every physician establishing his practice in Oregon. Requests for the Schedule and Rules and Regulations should be mailed to Clinton S. McGill, Director, Medical Division, State Public Welfare Commission, State Office Building, Portland, Oregon, or to the office of the County Public Welfare Commission in your local community.

Responsibility of representing the Society in matters relating to the medical aid program of the Public Welfare Commission has been assigned to the Society's Committee on Charitable Medical Care. This Committee has had frequent meetings with the Commission's Medi-

(Continued on page 780)

(Continued from page 779)
cal Director not only regarding the reimbursement of physicians for services to public assistance recipients but also regarding general policies and practices in administration of the medical aid program.

Most recent development in establishing working relationships with local Public Welfare Commissions has been the appointment by several component societies of a Medical Consultant to its local Public Welfare Commission. Where this has been done the local Medical Consultant is able to interpret the Commission's policies and explain its problems to the members of his society and obtain their cooperation.

Here again, the new physician upon establishing his practice in a community should become familiar with the administration of the public assistance medical aid program in his community.

Veterans' Medical Care

One of the most important concerns of medical organization during recent years has been the rapid expansion of the United States Veterans Administration Medical Aid Program and Facilities. It has long been the position of the American Medical Association that veterans requiring treatment for illness or disability incurred in military service are the primary responsibility of the Veterans Administration, and that there should be no obstacles to the provision of the finest medical care for them. However, growth of the present Veterans Administration program has been attended by an increasing preoccupation with the 83 per cent of discharges from VA hospitals which are non-service-connected and with the development of research and medical training programs which are not considered by medical organization to be the proper responsibility of a tax-supported Veterans Administration. This development has created conflict with state and local medical care programs and has imposed an immense and unjustifiable expense on the taxpayer. Moreover, it has tended to relegate to a minor role attention to service-connected disabilities.

The Veterans Administration Hospital system has grown from 45,000 beds in 1936 to 126,000 beds in 1955. A one day census of Veterans Administration Hospital patients taken in 1954 revealed that only 38 per cent of these beds were occupied by veterans with service-connected disabilities. The remaining 62 per cent were occupied by patients with non-service-connected disabilities.

Another aspect of the care of the veteran which is of importance to the physician is the program known as the Home Town Medical Care Program for service-connected disabilities. Under this program, which was initiated in 1947, the veteran may obtain out patient treatment from his own physician at Veterans Administration expense. The veteran wishing to obtain his out patient care through this program usually submits a request to the Veterans Administration giving the name of his private physician. The Veterans Administration will then send an authorization to the physician. In some instances, the veteran may seek the services of his family physician prior to the issuance of authorization. In such cases the veteran will advise the physician that he is eligible for Veterans Administration care whereupon the physician should request authorization from the nearest Veterans Administration Regional Office. This may be done by telephone or in writing. The physician, however, should request such authorization within 15 days after treatment has been rendered. To receive payment for services rendered under the Home Town Medical Care Program the physician completes Invoice No. 3920 and mails it to Oregon Physicians' Service which administers this program in Oregon. In this program Oregon Physicians' Service is referred to as the Intermediary. Its only function is to make payments to physicians for services authorized by the Veterans Administration. For this service, Oregon Physicians' Service is reimbursed by the Veterans Administration for administrative costs.

In recent years the Veterans Administration has sought to eliminate the Intermediaries in the administration of the program. The Society has strongly insisted that the present form of administration be continued so that the free choice of physician principle may be retained. It is the Society's fear that the elimination of the Intermediary might lead to the establishment of the designated physician practice now followed by many federal government agencies and which has been a source of great irritation to the profession.

In recent years the provision of medical care to veterans with non-service-connected disabilities by the Veterans Administration has been under attack by the American Medical Association. It is a subject of continuing discussion by the House of Delegates. One of the Association's most important committees is the Committee on Federal Medical Services which is under the chairmanship of the very energetic and forceful Lewis M. Orr of Orlando, Florida. It has also been the major subject of consideration by our own Society's Committee on Veterans Affairs. This committee is under the chairmanship of Gilbert Prentiss Lee of Portland.

Medicare

In June of 1956 the 84th Congress adopted the Military Dependents' Medical Care Act which established a program to provide medical care for the dependents of members of the United States Uniformed Services through the use of civilian facilities and physicians. This program had the approval of the American Medical Association which recommended that each state medical society confer with the Department of the Army, which was designated as the administrative agent to execute the law, concerning how the program should be administered in each state. The Oregon State Medical Society designated Oregon Physicians' Service to act as the Fiscal Agent to administer the medical portion of the Act in Oregon and conferred with representatives of the Department of the Army in the development of a contract by which the program would be placed in effect. The contract for Oregon which became effective on Dec. 7, 1956 will be re-negotiated with the Department of the Army by representatives of the Society on October 6 and 7, 1958 in Washington, D.C. A special Committee on Medicare has been appointed to review the operation of this program in Oregon to determine what revisions in the contract should be made. Russell H. Kaufman of Portland, who represented the Society at the original negotiations, is chairman of this Committee and will again represent the Society.

Liaison with Other Professions

In 1951, upon recommendation of the Committee on

(Continued on page 782)



an entirely new concept in broad-spectrum therapy

COSA



Cosa is an abbreviation for glucosamine, a basic substance older than man himself, found throughout the human body and in the whole spectrum of nature—lobster shells . . . mother's milk . . . eggs . . . gastric mucin. . . . It achieved new importance when Pfizer scientists discovered that this interesting compound provided the following significant advantages when added to antibiotics such as tetracycline and oxytetracycline:

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1. Higher, faster antibiotic blood levels[1]
2. More consistent high antibiotic blood levels[2]
3. Effective, well-tolerated broad-spectrum therapy[3,4,5]
4. Safe, physiological potentiation with glucosamine, a nontoxic human metabolite[6,7,8]

References: 1. Welch, H.; Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958. 2. Carlozzi, M.: Ibid. 5:146 (Feb.) 1958. 3. Shalowitz, M.: Clin. Rev. *1*:25 (April) 1958. 4. Stone, M. L.; Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy 5:322 (May) 1958. 5. Combleet, T.; Chesrow, E., and Barsky, S.: Ibid. 5:328 (May) 1958. 6. West, R., and Clarke, D. H.: J. Clin. Invest. *17*:173 (March) 1938. 7. Jimenez-Diaz, C.; Aguirre, M., and Arjona, E.: Bull. Inst. M. Res. Madrid *6*:137 (Oct.-Dec.) 1953. 8. Lerman, S.; Pogell, B. M., and Lieb, W.: A.M.A. Arch. Ophth. 57:354 (March) 1957.

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(Continued from page 780)

Public Relations, the Society established a number of liaison committees to represent the Society in the discussion of matters of mutual interest between physicians and other professions and groups. Such liaison committees were appointed to the Oregon Nurses Association, the Oregon Association of Hospitals, the Oregon State Dental Association, the Insurance Industry and the Oregon State Bar.

While all of these commitees have met frequently and accomplished much, perhaps the most significant accomplishment was the development of The Statement of Principles Regarding Certain Lawyer-Physician Relationships, an accomplishment of the Liaison Committee to the Oregon State Bar. This "Statement" was recently prepared in printed form and mailed to every member of the Oregon State Medical Society. Having the approval of the Society and the Bar, it has been an extremely effective aid in resolving many misunderstandings which have developed between physicians and attorneys and quite naturally its existence has, beyond a doubt, prevented many more. Every physician should preserve his "Statement" for ready reference.

Legislation

The Oregon State Medical Society is the watchdog for the members of the medical profession in matters relating to both Federal and State legislation. The American Medical Association maintains an office in Washington, D.C., to keep close contact with the actions of Congress.

A concrete example of this operation is the work which is currently being done to oppose the Forand Bill now pending in Congress. As you are well aware, the Forand Bill proposes to expand the Federal Social Security Program to provide hospital, medical and surgical care for the beneficiaries of the Social Security Program. This afternoon a special conference of "Key Men" is being held in this room to discuss the Society's plan for opposing this Bill.

During sessions of the Oregon State Legislature your Society maintains a legislative representative in Salem. This representative works under the direction of the Society's Committee on Public Policy which studies all legislative proposals relating to health and medicine which may be introduced, and submits its recommendations to the Council.

It is also important to understand that the Society may itself sponsor State legislation which it considers to be in the best interests of the profession and the general public.

Those Insurance Forms

Completing insurance forms is another irritation to most physicians.

To reduce the complexity of this problem, the Society in 1939 developed a Simplified Sickness and Accident Report Form for its members.

It is the recommendation of the Society that physicians provide a patient with the original "proof of loss" without charge. This can be in the form of his own statement, the insurance company's form or, if the physician wishes, the Society's form which most insurance companies accept in place of their own forms. The Society supplies its forms to members at cost—$1.25 per hundred.

It is legitimate for the physician to make a charge for providing additional reports which require him to search his records or to provide information beyond that necessary to the patient to collect the benefits of his policy. You will note that the Society suggests a *minimum* charge of $3.00.

Oregon Physicians' Service

Sometimes it is valuable to remind oneself of historical events, to orient current problems.

Every Oregon physician should remember that Oregon Physicians' Service is the "child" of the Oregon State Medical Society.

There is currently, however, much criticism of OPS on the part of Society members. Many physicians apparently look upon OPS as a thing apart—entirely independent of the Society.

Actually, OPS was established under the sponsorship of Oregon State Medical Society in 1941. The Society appropriated the $5,000 necessary for the paid-up capital required by the Oregon Hospital Association law and $1,000 for its immediate operating capital. Moreover, the Society nominated the members of the original Board of Trustees of 11 physicians.

The background which led to establishment of OPS is important to every physician practicing in Oregon. It began in 1904. In that year the first commercial hospital association was organized followed by 5 others during the next 20 years. These associations originally provided medical and hospital services to lumber workers but soon expanded their field of operations to include other industries as well. By offering to pay the full cost of medical and surgical care for their subscribers, these associations were actually selling the services of the physicians, many times without the consent of the physicians involved.

The so-called commercial hospital associations employed practices which were objected to by many physicians. They were regular corporations, and naturally sought to make a profit on their operations. Any procedure that reduced their payments to physicians would give them a greater profit.

After 25 years of constant conflict, the physicians of Oregon began to establish their own hospital associations. The first was the Physicians' and Surgeons' Hospital Service of Salem. It was followed by many others. At one period during the 1930's 16 local physician-sponsored plans were operating in Oregon.

With so many local plans sponsored by physicians there was, of course, some confusion. Patients covered under one plan were seeking services of physicians who were members of another and benefits varied. To establish general criteria for these associations, the Society established a Bureau of Medical Economics in 1937.

It became apparent that a statewide organization was desirable. Many employers, as well as physicians, recognized this need. The advent of World War II, with big shipyards, and the growing threat of socialized medicine accelerated the movement for a statewide organization. For instance, the Kaiser Corporation executives balked at entering into a contract with the Multnomah Medical Service Bureau to cover its shipyard workers. Upon the recommendation of its Committee on Medical Economics, the Society sponsored the organization of Oregon Physicians' Service. All but four

of the local physicians'-sponsored plans merged with the new organization.

In recent years OPS has undergone a number of important reorganizational changes. In 1951, a new Board of Trustees was elected from nominees submitted by local medical societies, thus giving the individual physician a voice in selecting the members of the policy forming body.

Further opportunity for local control of the medical program of OPS is provided through a local Supervisory Committee—again named by the local medical society.

Physicians who are in disagreement with any policy or practice of OPS may then effectively express their views through normal channels—his local society, his local supervisory committee, or members of the society who are on the Board of Trustees—in addition to OPS itself.

Moreover, the policies of OPS are frequently considered by the Council and House of Delegates of the Oregon State Medical Society.

Our purpose in devoting so much time to OPS in this summary is because your State Society is responsible for its existence and physicians who are members of the Society have a vital interest in its operation.

It should be recognized that OPS is a bulwark against those forces which would destroy the traditional American form of medical practice.

Conclusion

In this brief summary of important Society problems and activities I have tried to impress upon you its importance to you as a member and to the public at large. Not only is your Society important to you but you are important to the Society. It is essential that every new member take an active part in the affairs of his own local component society and be equally available for service to his State Medical Society. In conclusion, it is well to remember that the new member of today is potentially the Medical Statesman of tomorrow. •

Action Deferred on Committee Report

A lengthy progress report and recommendations of the Committee on Medical Education was presented to the Council of the Oregon State Medical Society at its April meeting by Chairman Robert S. Dow.

Due to the length and complexity of the report, the Council voted to defer further consideration of the matter until the next meeting and also requested the Executive Committee to consider the report and present recommendations at that time.

Since its establishment by the House of Delegates at the 1956 Annual Session, the Committee has held 26 meetings, 10 of these with representatives of the University of Oregon Medical School faculty and administrative staff. Included in the report were recommendations regarding nine areas of misunderstanding and disagreement between the Society and the Medical School.

Howard Lewis to Head National Group

Howard P. Lewis of Portland was named president-elect of the American College of Physicians at the organization's recent convention at Atlantic City.

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Traffic Safety Committee Recommends Physical Exams for School Bus Drivers

A recent report of Oregon State Medical Society's Committee on Traffic Safety which revealed plans for compulsory physical examinations for school bus drivers opened the door to speculation that the Medical Society may soon play a major role in establishing physical standards for all motorists.

Chairman Arthur A. Fisher of Salem told the State Council at its meeting on April 19 that current control of professional drivers in Oregon is limited to the chauffeur's license which may be obtained without physical examination.

He explained the school bus driver examination plan is first step in a new program to establish standards for all professional drivers. Standards for school bus drivers were established at request of the Oregon State Board of Health.

Following is the complete Committee report which was accepted by the Council:

COMMITTEE ON TRAFFIC SAFETY
REPORT TO THE COUNCIL
SATURDAY, APRIL 19, 1958

On April 15, your Committee convened in Portland at the request of the Oregon State Board of Health to consider the establishment of a uniform physical examination and personal history report form for school bus drivers in Oregon.

Guests at the meeting were Harold M. Erickson, State Health Officer; Ralph R. Sullivan, Director of the Occupational Health Section of the State Board of Health, and Mr. Ed Warmoth, Executive Secretary of the Oregon Traffic Safety Commission.

It was explained to the Committee that school bus drivers in Oregon are now simply required to obtain a chauffeur's license which carries no provision for a physical examination conducted by a qualified physician. The chauffeur's license is all that is required of other occupational drivers who operate vehicles within the State.

The Committee had no information to indicate that the traffic safety record of the estimated 2,300 school bus drivers in Oregon is any better or poorer than the records of other occupational drivers (logging, delivery, taxicabs). However, it was unanimously agreed that it would be desirable to establish uniform physical examination standards for occupational drivers in all categories. The school bus driver group represented a logical starting point.

In compiling a uniform physical examination form, the Committee was aware of the fact that the great majority of school bus drivers are part-time employees who follow other occupations during school hours. One school district employs college students as drivers. In other communities the busses are owned and operated by private contractors, who in turn, employ the drivers. Still other communities, especially smaller school districts, might utilize the services of a housewife or a retired farmer or businessman. Because of this variety of local practices, it was felt that the examination should be as complete as possible to cover the wide range in ages from teen-agers to persons over 65. It also was felt that more extensive diagnostic procedures should be recommended when indicated.

After consideration of a number of recommended physical examination forms for commercial and industrial drivers, some of which are now being used in other areas, the Commitee gave general approval to a suggested examination and personal history report developed in the State of New York.

A few of the items recommended in the New York form appeared to have only a remote connection to a person's ability to safely operate a commercial vehicle. Included in this category were depth preception, glare recovery, teeth, gums, nose, throat, tongue, flat feet, rectum, prostate, and military medical records.

The standard form as approved by the Committee provides for an extensive but realistic physical examination with emphasis on physical qualifications and personality as they might affect occupational drivers. This examination includes such personality data as appearance, intelligence, temperament and schooling, emotional and psychiatric evaluation and basic laboratory (urine, serology, C.B.C., x-ray of chest).

The minimum vision standards were re-worded to provide that if corrected visual acuity in either eye falls below 20/40, the better eye should not be less than 20/40 and the poorer eye no less than 20/70 and the binocular corrected acuity no less than 20/30. The visual field should conform to the standards of the Interstate Commerce Commission and color sense should include the ability to recognize basic red, green and yellow.

In addition the prospective school bus driver will be requested to complete a two-page personal health history. The personal history form requires the applicant to indicate if he has been treated for 47 specific illnesses and injuries and further stipulates a "Yes" or "No" answer to a list of 44 symptoms.

To assist the examining physician the Committee approved a reference list of conditions which may be non-acceptable for school bus drivers.

RECOMMENDATIONS

Your Committee recommends as follows:

1. That the Committee be authorized to submit a standard physical examination form and a personal health history form for school bus drivers to the Oregon State Board of Health with recommendation that the forms be approved for standard use in Oregon School districts as a requirement for employment commencing with the start of the 1958-1959 school year.
2. That the recommended examination and personal health history forms be approved for a period of one year in recognition that further study may indicate the advisability of additions and/or deletions.
3. That physicians be advised it is in the best interest of the applicant and the community to allow for sufficient time to complete the entire physical examination for school bus drivers.

Respectfully submitted,

Arthur A. Fisher, M.D., *Chairman*
Allyn M. Price, M.D.
W. P. Wilbur, M.D.
Mary Jane Fowler, M.D.
Edward N. McLean, M.D.
Wendell H. Hutchens, M.D.
Wilbur L. E. Larson, M.D.
Otto C. Page, M.D.
Forrest E. Rieke, M.D.



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Hyoscine hydrobromide	0.0065 mg.
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Oregon Alumni Association

During the seventy years since the first class graduated from the University of Oregon Medical School, there have been forty-three scientific sessions of the Alumni Association. Like all of the meetings since 1941, the session this year included lectures provided in the will of the late Ernst Sommer, now so well-known as the Sommer Memorial Lectures. Scientific papers by members of the Association, as well as the guest lecturers, were given in the Medical School Auditorium, April 16, 17 and 18. Fraternity reunion dinners were held the evening of April 15.

At the business meeting on April 17, John F. Larsell was named president. He graduated with the class of 1943, interned at the University of Kansas Hospital and served with the Army in the ETO. He returned to Portland after the war and trained in urology.

Others named to top posts are: Arthur W. Sullivan, vice president; Faulkner A. Short, secretary, and Joseph E. Nohlgren, treasurer. All are Portland physicians. Those named geographic vice presidents include: Keith P. Russell, Los Angeles; M. Irene Grieve, Spokane; Robert L. Schaeffer, Walla Walla, and Paul G. Hafner, Longview.

Annual banquet of the Alumni Association was held at Piluso's Restaurant, April 17. Certificate of honorary membership was presented to Frank Menne and lifetime memberships were awarded to the following:

Mayes Case, St. Johns, N.B., Canada, '92
Thomas O. Paxton, Seattle, '08
Luzanna Graves, Portland, '08
Zacarian A. Barker, San Diego, '08
H. Stanley Lamb, Portland, '07
O. Miller Babbitt, Portland, '06
William W. P. Holt, Medford, '05
Bertha Patton Baumbaugh, Santa Cruz, '05
Rasmus P. Mortensen, Medford, '04
Sherald F. Wiltsie, Seattle, '02
E. R. Seely, Portland, '01

During the session, Portland newspapers printed a number of stories on the meeting but featured the fact, to them quite amusing, that Lowell Rantz, scheduled to talk on control of infections, was unable to attend the first day's session because of acute gastro-enteritis. Dr. Rantz, however, arrived on the second day of the meeting with his energy and teaching ability unimpaired by the episode. His place on the Wednesday program was filled by Alan Moritz who gave two lectures, one on Unexpected Deaths from Natural Causes and the other on Trauma and Stress in the Causation of Heart Disease. His third paper, given Thursday morning, was on the County Coroner Versus State Medical Examiner System.

Mr. John Stallworthy of Oxford, England, read papers on Advances and Unsolved Problems in the Treatment of Uterine Cancer, Conservation in Obstetrics, and Functional Uterine Bleeding—Endocrine Aspects. The three papers have been presented to this journal for publication. The first of the series appears in this issue.



BERTRAM TRELSTAD, M.D.



MR. J. B. BIRD

Dr. Rantz spoke on Use and Abuse of Antibiotics, Staphylococcal Disease, and Antibiotics and the Intestinal Tract.

Alumni contributors to the meeting were: R. C. Blatchford, G. E. C. Nelson, J. W. Dowsett, H. M. Erickson, R. H. Keane, A. P. Friedman, J. W. Wiley, R. S. Dow, C. C. Carlson, E. Gettlemen, C. E. Gantbein, R. L. Johnsrud, B. N. Kvernland, C. E. Catlow and S. A. M. Johnson. •

Advisory Committee Member Named

Howard C. Stearns of Portland has been appointed to succeed Frank R. Menne on the advisory committee for the Sommer Memorial Lectures. Dr. Menne, chairman of the committee, recently retired as pathologist at St. Vincent Hospital, Portland, and has returned to his native Wisconsin.

Other members of the committee are Joel W. Baker of Seattle and Eugene W. Rockey and Arthur L. Rogers of Portland.


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GEORGE B. LONG, M.D. DAVID R. WHITE, M.D. HERMAN A. DICKEL, M.D. LEE THOMPSON, M.D.

Three Important Meetings Take Place of House Session

Pattern of the past several seasons was changed this year when the Oregon State Medical Society dropped the mid-year session of the House of Delegates and substituted three meetings devoted to Society affairs. One of these was new—the first Annual Key Men Conference. The other two were the New Member Institute and a session of the Council. All were held at the Columbia Athletic Club, Saturday, April 19.



Speakers at first "Key Men" Conference—seated, from left: Vern Miller, Salem, President of Oregon State Medical Society; Arch W. Diack, Portland, Chairman of Committee on Public Policy; and Mr. John P. Misko, Oregon City, Legislative Representative. Standing: Arthur P. Martini, Eugene, member of Committee on Public Policy; and James H. Seacat, Salem, Vice-Chairman of Committee on Public Policy.

The New Member Institute, conducted by Lee Thompson, chairman of the Committee on Public Relations, was held in the forenoon. Dr. Thompson discussed the interests of the new member of the medical community, particularly his need to know more about the operation of medical organization. President of the Oregon State Medical Society, Vern W. Miller, read the paper which appears in this issue. Herman Dickel, president-elect, gave an interesting discussion on medical ethics. This was followed by a comprehensive report of medical society activities given by David R. White. His paper, also, is published in this issue. George B. Long, a member of the Committee on Professional Consultation, gave a report on the dangers of malpractice claims. His remarks were based on many years of experience on the committee and reflected a great deal of serious thought on the problem.

The Key Men Conference followed in the afternoon. This meeting was for those in key positions in the component societies and was planned to assist them in coordinating the activities of state and county organizations. Conferees were welcomed by President Vern W. Miller who outlined the purposes of the meeting.

Arch W. Diack, chairman of the Committee on Public Policy, discussed Federal and State Legislation and the Key Man's Role. The Forand Bill and need to oppose it were discussed by James H. Seacat. Relationship of the Key Man to his society and his community and his responsibilities to each were discussed by Arthur P. Martini.

Mr. John Misko, legislative representative of the Oregon State Medical Society, discussed the help given to the legislature, when in session, by key men from the Medical Society. This was followed by another discussion from Vern Miller on the importance of county society organization. Herman Dickel, president-elect of Oregon State Medical Society, read a paper on Important Activities Which a Component Society Should Undertake.

The program was concluded by a panel on "Major Medical Society Problems." Moderator was William G. Holford, vice-president. Members of the panel were Gene T. McCallum, vice-chairman, Committee on State Industrial Affairs; Clinton S. McGill, director of Medical Division, Public Welfare Commission; Mr. Joseph Harvey, manager of Oregon Physicians' Service and G. Prentiss Lee, chairman of Committee on Veterans' Affairs. •

Committee on Industrial Health To Survey Industrial Plant Operation

Industrial plants in Oregon employing more than 100 will soon be the subject of an extensive survey to be conducted by the Oregon State Medical Society under supervision of Ralph Sullivan's Committee on Industrial Health.

The Committee was authorized by the State Council to conduct a survey on two major phases of plant operation—disaster planning and the use of testing equipment for the purpose of determining eligibility for employment.

First half of the survey is designed to determine whether industrial plants have established plans for disaster control within the plant and further whether a master plan has been adopted in event of a national disaster arising out of enemy attack.

Second phase of the survey dealing with testing devices to determine eligibility for employment follows considerable discussion at the Committee level on the relative merits of such equipment. The survey should indicate the percentage of large employers using audio, visual, psychologic or other testing equipment for job placement.

In addition to approving the survey, the Council appropriated funds to defray expenses of Committee Member John G. P. Cleland of Oregon City while attending a two-day meeting of the President's Commitee on the Employment of the Physically Handicapped in Washington, D.C. The President's Conference was held May 8-9.

Obituaries

Dr. George E. Houck, 92, who was honored in 1952 as the oldest practicing physician in Oregon, died April 14 in a Portland rest home. Dr. Houck received his degree in 1890 from the University of Oregon Medical School, as a member of the school's third graduating class. He was the second physician to serve an internship at Good Samaritan Hospital in Portland. After a year on the staff of the Warm Springs Indian Agency, Dr. Houck entered private practice at Mitchell. In 1898 he moved to Roseburg, where he remained throughout his practicing career. He served as a member of the city council, as city and county health officer and as mayor from 1924 to 1929. He was a captain in the Medical Corps during the Mexican border engagements of 1916 and in World War I he spent 19 months in France as a major. Dr. Houck was a past-president of the Southern Oregon Medical Society and a councilor of the State Society. He was a member of the State Board of Health in 1921-1925 and 1929-1933, and was president of the Board in 1924.

Dr. E. W. Howard, 80, who practiced for 40 years in Corvallis, died April 16 of a heart attack. Dr. Howard received his medical degree in 1908 from St. Louis College of Physicians and Surgeons, and then practiced for 10 years in Brownville before locating in Corvallis in 1918. He served in the Philippine Islands during the Spanish-American War and was a contract surgeon during World War I. He was retired from the 41st Division during World War II as lieutenant colonel.

One Out of Five Tuberculosis Patients Leave Hospital Against Medical Advice

J. Karl Poppe, the Society's representative on the Board of Directors of the Oregon Tuberculosis and Health Association, has expressed concern about the number of patients who leave the state tubercular hospitals each year against medical advice.

Dr. Poppe reported that about 20 per cent of the patients leave before their treatment is complete or while they are still in a contagious state.

He said the high rate of irregular discharge might possibly be reduced if additional explanations were given these patients at the time of original diagnosis before admission. Dr. Poppe recommended that patients be advised to plan for a six or eight month stay in the hospital, or possibly longer, and should make arrangements at home for being absent during this period.

Medical Board Names Officers

Officers of the Oregon State Board of Medical Examiners for the coming year are Wilmot C. Foster of Portland, president, and George H. Lage, also of Portland, re-elected secretary-treasurer.

The Board also issued licenses to nine candidates to practice medicine and surgery in Oregon. Those licensed are: James A. Schneider and John J. Guyer, Portland; Donald A. Forinash, Victorville, Cal.; Mason C. Reddix, Albuquerque, N. M.; Donald McKinley, Ann Arbor, Mich.; Francis L. Sult, Nampa, Ida.; Ceilous L. Williams, Jr., Seattle, Wash.; Marion T. Merrill, Gilroy, Cal.; and Robert C. Turner, Grand Forks, N.D.

Next Board meeting is scheduled for July 18 and 19, and next State Board Written Examination is set for July 16 and 17.

Portland Physician Takes Foreign Post

Philip Selling, Portland internist, left early in May for a two year post under the International Cooperative Administration in Indonesia. He will serve as an assistant professor of medicine at the University of Djakarta under the cultural exchange program of the ICA which is under the state department.

Regional Group Elects Officers

The following men were named to office at the annual meeting of the Portland Regional Academy of General Practice in Portland April 21: Bruce Boyd, Portland, president; Arthur Pochert, Portland, president-elect, and Gerald Harpole, West Slope, secretary-treasurer.

Portland Physician Assumes High Post

Merle W. Moore, Portland allergist, was installed April 24 as president of the American College of Allergists at the group's annual meeting in Atlantic City. He is the first physician from the west coast to be named to the high office.

UOMS Professor Receives Research Grant

Charles T. Dotter, professor of radiology at the University of Oregon Medical School, has been awarded a research grant of $2,630 from the Oregon Heart Association. Dr. Dotter will use the funds toward developing a new technique for x-raying heart arteries.



Fig. 1. Members of the Woman's Auxiliary to Oregon State Medical Society honored their retiring president and new presidents during the 1958 installation ceremony in Portland. From left: Mrs. Merle Pennington, president; Mrs. Oscar Stenberg, past-president, and Mrs. E. Arthur Underwood, president-elect of the National Woman's Auxiliary who officiated as installing officer. Fig. 2. Mrs. J. E. Else, left, first President of the Woman's Auxiliary to Oregon State Medical Society (1927-1929), inspects new honor roll of past-presidents presented to the Auxiliary by Retiring President Mrs. Oscar Stenberg of Hood River. Scroll records names and dates of office of all presidents. Fig. 3. Officers and directors of the Woman's Auxiliary to Oregon State Medical Society posed for this photo during the annual installation program held in Portland April 19. Standing from left: Mrs. Merle Pennington, Sherwood, president; Mrs. Oscar Stenberg, Hood River, past-president; Mrs. Glenn Ten Eyck, Portland, treasurer; Mrs. Willis B. Shepard, Eugene, president-elect; Mrs. A. Arthur Underwood, Vancouver, Wash., president-elect, National Auxiliary; Mrs. C. A. Fratzke, Independence, Recording secretary; Mrs. Harry B. Moore, Portland, director; Mrs. Herbert Mason, Beaverton, member, Governor's Safety Council; Mrs. Harvey Baker, Portland, corresponding secretary; Mrs. W. T. Edmundson, Hood River, past-corresponding secretary; Mrs. Roswell S. Waltz, Forest Grove, past-president (1953-54), and Mrs. J. Earl Else, first president of the Auxiliary (1927-29).

Mrs. Underwood Installs Mrs. Pennington As President of State Auxiliary

A large delegation from Oregon is expected in San Francisco this June when Mrs. E. Arthur Underwood, Vancouver, Washington, accepts the gavel as president of the Woman's Auxiliary to the American Medical Association.

Mrs. Underwood, long active in Auxiliary affairs, recently served as installing officer when Mrs. Merle Pennington of Sherwood took office as president of the Woman's Auxiliary to the Oregon State Medical Society. Mrs. Pennington succeeds Mrs. Oscar Stenberg of Hood River, who was honored by the State Council for an outstanding year as president.

The State Auxiliary's new president-elect is Mrs. Willis B. Shepard of Eugene. Mrs. Shepard served as 1957 chairman of the Auxiliary's very successful Christmas card sale which raised a large donation for the American Medical Education Foundation.

The National Auxiliary Meeting in San Francisco will open on June 23, and continue through June 27. As president-elect, Mrs. Underwood will be honored at a number of business and social functions. She will receive the President's Pin and present her inaugural address at the close of the morning business session on Thursday, June 26. Headquarters for the National Auxiliary Meeting will be the Fairmont Hotel. All members of the Auxiliary are invited to attend.

A. O. Pitman Speaks on Medical History

A. O. Pitman of Hillsboro, past-president of the State Medical Society, recounted the work of the medical profession in Oregon, and especially in Washington County, at a recent meeting of the Washington County Historical Society. Dr. Pitman covered the period from the earliest settlement until after the turn of the century.

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President's Page



VERN W. MILLER, M.D.

It is always gratifying when a President has the opportunity to report on a success. The First New Member Institute held under the



David R. White, North Bend, presents detailed report on a few accomplishments of Oregon State Medical Society during recent New Member Institute. (Condensation appears elsewhere in this issue.) At left is Lee Thompson, Beaverton, chairman of the Committee on Public Relations, who presided at Institute. At far right is Vern W. Miller, Salem, State president.

new Society rule that all physicians are requested to attend an Institute within the first two years of membership must have been an extremely pleasant and educational experience for those in attendance.

The success of the event is a tribute to Lee Thompson, Chairman, and the entire Committee on Public Relations for arranging an informative and stimulating discussion of the objectives and principles of your Society.

The 36 new members, residents and interns who registered for the half-day course came from 10 counties. There was a warm atmosphere of enthusiasm displayed by the "student body," and not one person indicated that he was attending only because, "the Society rule forced him to participate."

The history of the New Member Institute is brief, dating but three years. However, the development of the Institute itself is symbolic of what can be accomplished by members interested in working for their Society. The first voluntary Institute was organized in 1956 by A. J. Kreft and his Committee on Public Relations. Although the attendance in '56 was disappointing, the Committee unanimously voted to continue the program. Later a recommendation was brought to the Council that the importance of the course be recognized in the Constitution and By-Laws and all new members be encouraged to attend.

With the presentation of the 1958 program our



Photographer snapped this picture of enthusiastic "students" during 1958 New Member Institute sponsored by Oregon State Medical Society. From left: R. T. Gustafson, H. B. Ballantyne, J. E. Holland, D. B. Franck, R. A. Payne and Delbert Blickenstaff.

New Member Institute has come of age. A future position in the regular calendar of events is assured for this infant among Society activities.

Vern W. Miller

President

Washington

WASHINGTON STATE MEDICAL ASSOCIATION
1309 Seventh Avenue
Seattle 1, Washington

ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane
Secretary, F. A. Tucker, M.D., Seattle
Executive Secretory, Mr. R. W. Neill, Seattle

Convention Breakfast To Honor Past Presidents of WSMA

With President Milo T. Harris as host, past presidents of Washington State Medical Association will be honored at a complimentary breakfast during the Association's 1958 convention, which will be held in Spokane September 14-17.

Dr. Harris said all past presidents are invited to the breakfast, which will be held at 7:00 a.m. September 16 in the Davenport Hotel. Nineteen past presidents are known to be living, the dean of them being Park Weed Willis of Seattle, who was president in 1901. Records for the years prior to 1925 are incomplete, however, and anyone knowing of any other living physician who was president before that is urged to contact the Central Office at 1309 Seventh Avenue, Seattle.

Other convention events will include two days of scientific meetings, one day of scientific movies, business sessions, sports program and a calendar of social functions. Six out-of-state guest speakers will be featured in the scientific program, and will conduct postgraduate courses during the forenoons of September 16 and 17. Pre-registration information for the postgraduate courses will be announced in the near future.

Luncheon meetings announced to date for Tuesday, September 16, include the Washington Chapter, American College of Surgeons; Washington Academy of General Practice; WSMA Section on Internal Medicine, and Washington Association of Local Health Officers.

Shelby Jared Vice-President of Blue Shield

M. Shelby Jared of Seattle, medical director of King County Medical Service Bureau, was elected vice-president of the Blue Shield Plans of the United States at the organization's annual meeting in Chicago April 27-May 1. Dr. Jared previously had served for two years on the Blue Shield Commission.

At the same meeting, Carlton E. Wertz of Buffalo, N.Y., was installed as president, and Frank L. Feierabend of Kanssa City, Mo., was elected president-elect. There are 66 Blue Shield Plans in the States, Territories and Canada.

Physical Therapists To Meet

American Physical Therapy Association will hold its 35th Annual Conference in Seattle at the Olympic Hotel, June 15 to 20. Theme of the meeting will be Neuromuscular Facilitation.



Doctor-Lawyer Meeting—The second annual Chelan County Medical Society-Bar Association meeting was held in East Wenatchee May 5 with the medical society as host. Guest speaker was Richard J. Blandau of Seattle, assistant dean of the University of Washington School of Medicine, who spoke and showed films on "Seeing Life Through the Microscope." In photos, from left, are: (1) Donald C. Phillips, medical society president, Dr. Blandau, and Mr. Robert F. Murray, bar association president; (2) Mr. Larry Carlson, bar association secretary; Warren J. Kraft, medical society president-elect, and State Senator H. B. "Jerry" Hanna; (3) Judge Fred Kemp, retired; Norman M. Bellas, medical society program chairman, and Judge Lawrence Leahy of Chelan County Superior Court.



Hospital practice of infant feeding

Standard formulas for WELL INFANTS

Since age, appetite and digestive capacity vary, hospital practice favors an individualized formula for each infant.

The total daily feeding usually amounts to 2 ounces of milk *per pound of body weight*, plus 1 ounce of Karo Syrup with enough water to satisfy fluid requirements.

The newborn usually takes from 2 to 3 ounces of formula per feeding; the very young infant, 4 to 5 ounces—the daily quota yielding over 50 calories for each pound the infant weighs. The quantity per feeding should not exceed 8 ounces.

Newborns are fed at 3 to 4 hour intervals throughout the 24-hour period—the 2 or 3 A.M. feeding is discontinued after the neonatal period. In the third or fourth month the 10 or 12 P.M. feeding is discontinued, once the infant fails to awaken for the bottle. Standard but individualized formulas which constitute the hospital infant feeding regimen are shown here.

WHOLE MILK FORMULAS

Age Months	Cow's Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings in 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	768

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Grant County Society Campaigns For Mosquito Control District

Important measures affecting the public health are usually supported by medical organizations. This tradition is being carried on by the Grant County Medical Society in a campaign for a mosquito control district in that area. Members of the Grant County Society are disturbed over the possibility of an outbreak of encephalitis, due to the recent mild winter and anticipated sharp increase in numbers of mosquitos. They have requested the County Commissioners to initiate action leading to formation of a control district.

So far, the Commissioners have refused to act except as result of petition. Some groups oppose the measure because of taxes which would be imposed. Undoubtedly, the Commissioners are considering these complaints. Their position is valid, in view of the permissive legislation passed at the 1957 session of the State Legislature.

S. B. 483, now Chapter 153, Laws of 1957, was introduced at Olympia at the most recent session. As originally written, it applied only to Adams, Benton, Franklin, Grant, Kittitas and Yakima counties. Walla Walla was included by amendment. The law permits the County Comissioners to act on their own initiative or in response to petition. The latter must be signed by at least 10 per cent of the voters and signatures must be certified.

County Commissioners are required to hold hearings in either event and finally must call an election to determine the will of the voters. In the Grant County situation the Commissioners have refused to initiate the movement but are waiting for petitions.

The Medical Society placed itself firmly on record by sending the following letter to the Commissioners:

> At the regular meeting of the Grant County Medical Society, Inc., held last Monday evening the problem of possible increase in encephalitis cases this year was discussed. It is the opinion of the members-physicians of the Medical Society that because of the extremely mild climate condition this year with the probable resulting increase in the number of encephalitis carrier mosquitos that this serious and possible fatal disease may increase to very serious proportions this year.
>
> The Medical Society feels that the County Commissioners should immediately take steps to form the necessary mosquito control districts so that effective area-wide measures can be taken to eliminate, as much as possible, the mosquitos which carry the encephalitis in this area.

Panel Discusses Home Accidents

A panel discussion on home accidents was presented as a public service April 22 in Port Angeles by Clallam County Medical Society. Decision to present the symposium came as a result of great public interest in a similar panel meeting on heart and circulatory ailments held in February.

Panel members and their topics were as follows: Kingsley Morrison, Statistics on Home Accidents; Albert F. Mangan, Causes of Home Accidents; L. E. Paddock, Prevention of Home Accidents, and Frank J. Skerbeck, Treatment of Home Accident Injuries. J. L. McFadden acted as moderator. All are Port Angeles physicians except Dr. Paddock who is located in Sequim.



Fifty Years of Service—On May 7 Herbert E. Coe of Seattle was honored for his 50 years service on the staff of the Children's Orthopedic Hospital by the presentation of a life-size oil portrait of Dr. Coe to the Hospital. From left: Herbert Moon, White Salmon, honorary member of the hospital staff; Dr. Coe; Miss Ruby Fall, hospital librarian and historian; Jay I. Durand, Victoria, B.C., honorary member of the hospital staff, and Vernon Spickard, chief of staff.

Children's Orthopedic Hospital Honors Herbert Coe for Fifty Years Service

Herbert E. Coe, first Emeritus Chief of Surgical Services at the Children's Orthopedic Hospital in Seattle, was given recognition of his 50 years service on the hospital staff at a dinner and special program held May 7 at the hospital. A life-sized oil portrait of Dr. Coe, a gift of the hospital Board of Trustees and the medical staff, was unveiled by Robert Coe, son of the honored man. Willard Goff, president of the medical staff, presented teh portrait to Mrs. Burns Lindsey, president of the hospital board.

During his 50 years as a member of the hospital staff, Dr. Coe served as Chief of Staff for 10 years and for 30 years was Chief of Surgical Services.

Prior to the unveiling, a bound book, containing more than 200 congratulatory letters from former patients, parents and colleagues from throughout the United States and other countries, was presented to Dr. Coe by Miss Ruby Fall, hospital librarian.

Other honors which have been received by Dr. Coe include the Grulee Award given in October 1955 for "outstanding contributions in pediatric surgery" of the American Academy of Pediatrics and a National Citation with Medallion from the National Conference of Christians and Jews awarded in May 1957.

The event was attended by physicians from throughout the state. The physician to come from the furthest point for the unveiling was Miguel Gomez of Guadaljara, Mexico, a former resident at the hospital.

Frank Douglass was master of ceremonies of the program and Edgar Rogge, president-elect of the staff, was chairman.

Doctors and Lawyers Hold Stag

Tacoma physicians and lawyers met at their annual Stag Dinner April 24 at the University Union Club. This year the Tacoma Bar Association hosted the event, adding golf and bridge contests to the regular affairs of the banquet.



Fig. 1. Guest speaker Orvar Swenson, professor of pediatric surgery at Tufts Medical School, Boston, presents a paper on Principles of Pediatric Surgery at the evening banquet. Fig. 2. Left to right: J. W. Bowen, Jr., Tacoma, president-elect of Pierce County Medical Society; Rodger S. Dille, Tacoma, President of Tacoma Academy of Internal Medicine; and Dumont Staatz, Tacoma, secretary-treasurer of Tacoma Surgical Club. Fig. 3. At the banquet: from left, Q. Piper, Madigan Army Hospital; and Bernard Baker, George Tanbara, Kenneth Cross and Theodore Haley, all of Tacoma. Fig. 4. At the speakers' table: from left (facing camera), Wilbur Watson, president, Seattle Surgical Society; Dr. Swenson; E. R. Anderson, president, Tacoma Surgical Club; Dr. Bowen, Jr., and Dr. Dille.

Tacoma Surgical Club Annual Meeting Draws Record-Breaking Attendance

Twenty-seventh Annual Meeting of the Tacoma Surgical Club held at Jackson Hall of Tacoma General Hospital, Saturday, May 3, drew the largest registration of any year for the day and evening sessions.

Morning Session

Morning session consisted of the usual anatomic demonstrations by club members and invited guests, and created much comment. Also shown were numerous exhibits which included the heart-lung machine, methods of laboratory analysis and new methods of anesthesia. Orvar Swenson of Boston, guest speaker, toured the exhibits and discussed them.

Afternoon Session

Dr. Swenson, professor of pediatric surgery at Tufts Medical School and surgeon-in-chief at Boston City Children's Hospital, delivered the main address of the afternoon session. His subject was Ten Years Experience with Two Hundred Megacolon Patients. He stated that the operation and resection of a neurogenic portion of the colon with anastomosis of the colon to the segment of the rectum has proved to be the operation of choice for this condition and he showed many cases with cure over a 10 year period with complete continence of the patients. Dr. Swenson stressed the absolute necessity of doing a sharp dissection about the terminal recto-sigmoid area, rather than blunt dissection which would destroy the nerves going to the bladder and also cause loss of sexual function.

The afternoon papers were given by club members. Robert Florence gave a paper on Pain in the Knee in which he stated disease was actually located in the hip—the pain merely being referred to the knee. He cited several cases, and presented an excellent paper.

Warren Smith's paper, Tumors of the Neck in Chil-

(Continued on page 798)

FACING PAGE—Fig. 1. E. R. Anderson, Tacoma; Orvar Swenson, Boston; and William E. Avery, Tacoma. Fig. 2. R. O. Diefendorf of Bremerton demonstrates Anatomical Dissection of the Neck. Fig. 3. Guest speaker Swenson discusses clinical applications of the heart-lung machine with demonstrators Thomas O. Murphy and Edwin A. Kanar of Tacoma. Fig. 4. J. Walfred Wallen of Burlington, Hillis Griffin, Tacoma, and Milton P. Graham, Aberdeen, watch attentively as Don G. Willard of Tacoma demonstrates surgical anatomy of radical breast dissection. Fig. 5. Herbert C. Kennedy of Tacoma discusses his exhibit on surgical anatomy of radical prostatectomy with J. L. Norris of Longview. Fig. 6. Theodore R. Haley exhibits surgical approaches to the facial nerve to E. B. Coulter and F. M. Lyle, both of Spokane. Fig. 7. John J. Bonica of Tacoma, Dr. Swenson and Henry Harkins, professor of surgery at the University of Washington School of Medicine. Fig. 8. Exhibitor Jess W. Read of Tacoma discusses surgical anatomy of the hand in relationship to contractures with Jack Erickson of Tacoma, Charles Dennen of Seattle, J. L. Stanley of Bremerton and Clifford Smith of Spokane. Fig. 9. Wendell G. Peterson of Tacoma demonstrates surgical anatomy of the knee joint to a group of interested spectators.


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Fig. 1. Twenty-seventh Annual Meeting of the Tacoma Surgical Club drew record-breaking attendance. Fig. 2. Guest speaker Orvar Swenson of Boston discusses a point with Ernest E. Banfield of Tacoma, who presented an exhibit of surgical anatomy of the head and forearm. Fig. 3. Charles L. Salmon of Tacoma and George F. Asbury of Bremerton demonstrate surgical anatomy of the colon. Fig. 4. A. A. Sames of Tacoma stops at the exhibit on endoscopic removal of foreign bodies to speak with exhibitor Murray L. Johnson, at left, also of Tacoma.

(Continued from page 796)

dren, summarized experience with tumors of the neck in the four Tacoma hospitals.

Surgical Management of Craniosynostosis in Children was the subject of the paper by John T. Robson. It was illustrated by a movie showing a successful operation in which a segment of the bone was removed and a piece of pliofilm placed around the severed edges to prevent the bones fusing together.

Robert Burt gave a paper on Intestinal Polyps and Their Importance in Children, and Stanley Tuell gave a paper on Inguinal Herniorrhaphy in Infants and Children.

The papers were discussed by Dr. Swenson and a question and answer period followed. Dr. Swenson pointed out that hernias in children should be repaired as soon as possible because danger of incarceration is nearly 25 per cent; the death rate from incarcerated hernias is higher than that from acute appendicitis in children. He felt that hydroceles can be watched up to one year after which time they should be operated on. He also feels that patients with undescended testes should not be operated on until they are 12 years of age since, in many of these cases, the testes will have descended by that time.

Evening Session

Presentation of certificates to new members opened the evening session which was held in the Bayview Room of the Hotel Winthrop.

Principles of Pediatric Surgery was subject of the main address given by Dr. Swenson. Following are some of the main points presented in this excellent paper.

Generally speaking, according to Dr. Swenson, surgery for children or infants should be undertaken at an early age since infants can stand surgery far better than was formerly believed. Dr. Swenson's short diagram showing how to evaluate fluid balance in infants was very enlightening.

He stressed the necessity of using extremely gentle technique and said that in his clinic he has what he calls *disciplinary silk* (6-0 silk) which is so fine one can scarcely see it, but is suitable for tying vessels and tissues. He deplores the use of heavy sutures in children and referred to it as *hawser-type* surgery. Dr. Swenson stated that it is not necessary to make large incisions—rather, they should be kept as small as possible. He also feels that blood should be used very sparingly as children tolerate surgery well without using much blood and this factor should be carefully watched. As an example, Dr. Swenson cited several operations for congenital megacolon, an extensive procedure, without the use of any blood whatsoever.

He went on to say that children should be fed as soon as possible—in fact, the day of the operation, even in intestinal anastomosis; and there is no necessity for feeding children by vein when feeding by mouth is so practicable.

Dr. Swenson deplored the use of hyperdermoclysis, stating that it has not been used in Boston hospitals for the past five years. Anesthesia should be very light, he said, and the child should be awake within five minutes after surgery—even in major abdominal surgery. There is no necessity for recovery rooms, he said, inasmuch as the patients should be fully awake when returned to their rooms. Instead of recovery rooms, Dr. Swenson said, we should have therapy units in the hospital where the very sick patients are kept where they can receive the intensive care they require.

Dr. Swenson was an extremely entertaining and forceful speaker and it was the general concensus of those attending that this was one of the best meetings the Tacoma Surgical Club has had. •



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CITRA CAPSULES... for optimum relief of cold symptoms at any stage.
CITRA COUGH SYRUP... for relief of minor coughs and cold symptoms.

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Seattle Physician Receives Award

Bruce Mackler of Seattle, who has been designated an Established Investigator by the American Heart Association, recently was awarded a total of $11,500 for the support of research projects of his own chosing. The award, $9,500 from the national association and $2,000 from the state organization, will be used by Dr. Mackler for the third of his five years of uninterrupted research support assured him under the Established Investigator program of the Heart Association.

The Seattle physician, who will conduct his investigation at the University of Wasihngton School of Medicine, is doing studies on the metabolic sequences involved in electron transport in heart muscle tissue.

Dr. Mackler's award was among 183 totaling $1,433,-147 given to scientists throughout the country under the national research support program of the Aemrican Heart Association and its attiliates.

Industrial Medicine Discussed

Members of Whatcom County Medical Society heard a discussion of industrial medicine at the group's regular monthly meeting May 6. W. J. Foley, medical consultant to the State Department of Labor and Industries, noted in hsi talk that the department processed 98,000 claims last year.

UW To Build Housing for Interns

Plans have been made by the University of Washington to build a $440,000 apartment unit to house married interns and residents of the University Hospital. The building will accommodate 40 families and the first units are expected to be ready for occupancy by July 1960.

Yakima Health Officer Re-Appointed

Stanley R. Benner has been re-appointed Yakima County District Health Officer for his twenty-first year. Re-appointment is required by law, and the one year term will expire next April.

During the Health District Board meeting, Dr. Benner reported that since closure of Central Washington Tuberculosis Hospital at Selah in January, the number of Yakima county tuberculosis patients being hospitalized at Seattle, Tacoma or Spokane is about the same as when Selah was in operation.

Prior to the closure of Selah, the opinion had been expressed that many tuberculosis patients would not undergo hospital treatment because of the distance from their homes to the other state institutions.

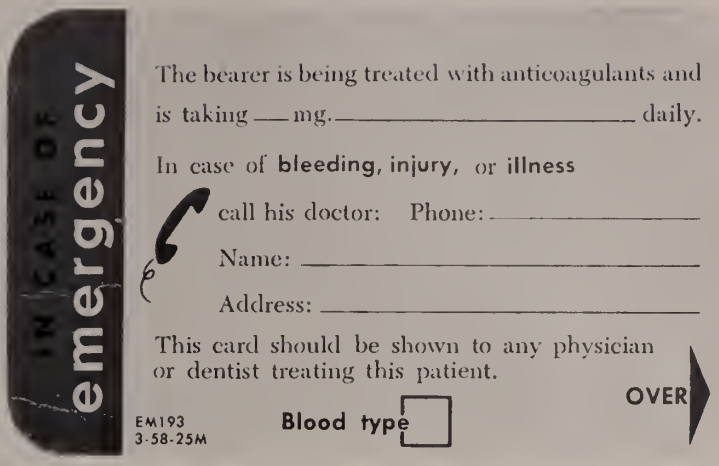
Ovid O. Meyer Addresses Meeting

Ovid O. Meyer, professor of medicine at the University of Michigan, spoke before a joint meeting of the veterans hospital administration and the Spokane County Medical Society March 20 at the VA Hospital in Spokane. Dr. Meyer, who is a member of the Society for Clinical Research and one of the pioneer researchers in the field of anemia, presented a paper on the use of anticoagulants.

Spokane Surgical Admits New Fellows

During the 21st Annual Meeting of the Spokane Surgical Society April 12, four Spokane surgeons received certificates of active fellowship. New fellows of the Society are: Leonard A. Swinnel and Dale D. Popp, both diplomates of the American Board of Orthopedic Surgery, and Richard N. Kleaveland and John E. Sonneland, both diplomates of the American Board of Surgery.

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Heart Association Issues Emergency Identification Card for Patients on Anticoagulant Therapy

Identification card for protection of patients on long-term anticoagulant therapy is now available.

The card points out that the bearer "is being treated with anticoagulants which slow down clotting of the blood." In case of emergency—bleeding, injury or illness—the card advises that a doctor be called, since the patient may require an antidote.

The card contains space for the name, address and phone number of the individual's physician. There is also space to indicate the kind of anticoagulant prescribed and the patient's blood type.

Physicians may obtain samples of the identification card from the Washington State Heart Association, 3121 Arcade Building, Seattle, or its Branches in Tacoma, Spokane and Yakima.

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Robins

WSMA Recommendations Regarding Visual Screening of Pre-School and School Age Children

I. Pre-School Screening

The correct evaluation of the eye status of every pre-school child is an admirable goal. Although it would encounter obstacles, it should not be considered impossible in an age where the health needs of minority groups are considered of utmost importance. Furthermore, certain eye conditions must be diagnosed in the pre-school age in order to insure a response to treatment.

The examination of the child by the family physician will uncover most but not all of these defects. Some are revealed only after the eyes have been properly medicated and examined by an ophthalmologist—i.e., a medical doctor who is well trained in the diagnosis and treatment of medical, refractive and surgical eye conditions. Limited-type practitioners are not adequately prepared for the necessary diagnosis and treatment.

This is not a school problem but one which should be solved with the combined efforts of the Public Health Department and the medical profession. At present, there is no acceptable plan other than re-emphasizing the necessity for careful screening by the family physicians and pediatricians.

II. School Screening

(A) *Philosophy*:

While it is apparent that the danger of production of permanent damage by poor visual acuity in children has been overstated frequently and some of the other ocular factors even more overstated, it remains that proper vision and eye comfort are very important to the acquiring of knowledge by students.

Since an occasional parent fails to assume his parental responsibility, a school program for efficiently detecting those who need ocular care is necessary. This program is to be considered an expedient until such time as these children have matured sufficiently to assume individual responsibility.

This program should discover those needing care, and not attempt to be diagnostic in scope. To insure against misinterpretation of these aims, professional eye practitioners should not take part in screening. Under no circumstances should an attempt to diagnose a pupil's apparent difficulty be made in a screening program.

The mere fact that a practitioner did the screening and gave a passing report might give a false sense of security to the parent that all is well. Since this screening could be at best only a rough incomplete examination, there is no basis for such an inference being allowed, and if the screening was done by a lay person this danger could be avoided.

No individual, whether he be an ophthalmologist, orthoptic technician, osteopath, chiropractor, or anyone practicing the healing arts, or an optometrist, who could in any way make a financial profit by examining or treating the pupils who are found to have defective vision should be allowed to do the actual screening of the school children. We feel that this rule is so important that to ignore it will put the entire school health program in jeopardy. Furthermore, this screening should be under the direct supervision of the local school health administrator. It should be his right and sole responsibility to decide when and if he needs any outside assistance or advice.

Visual screening should not be over-emphasized, but should be conducted as an integral part of the entire school health program.

In addition, the program should accomplish the following:

1. Identify the pupils with visual defects.
2. Help them receive needed health services.
3. Acquaint teachers with pupils' visual disabilities.
4. Show where adjustments in the individual's educational program are needed.

(B) *The various methods available are*:

1. Snellen
   - (a) Not self-illuminated:
     - (1) Cardboard charts; inexpensive and generally available. Both alphabet and illiterate "E" available.*
   - (b) Self-Illuminated types:
     - (1) Atlantic City — uniformly illuminated. Uses illiterate "E" and provides for muscle balance screening, plus sphere screening and is relatively inexpensive.
     - (2) Massachusetts—relatively same as Atlantic City.
     - (3) Green's Eye Chart—not uniformly illuminated and relatively expensive.
     - (4) Projectochart — uniform illumination. Contains illiterate "E" and alphabet slides; no 20/25 illiterate line. Relatively expensive.
2. Stereoscopic Instruments

   These methods require more training upon the part of the screener. The screening takes longer to perform. The machines are relatively expensive. Repeated surveys have shown the largest per cent of over referral is produced by these systems.
3. Teacher observation for visual symptoms and signs.

   These are valuable and should be considered a basis for referral even in the absence of other findings.

(C) *General Recommendations*:

1. Pre-school screening to be done in the office of the family doctor or pediatrician as a part of a routine complete physical examination.
2. Yearly visual screening of all grade and high school children and more often if requested by teacher, eye physician or optical practitioner.
3. Screening to be done by teacher—this will insure child cooperation and prevent consideration of results as being diagnostic.
4. Teachers to do screening after being qualified according to California State Department of Public Health Plan. This makes yearly screening possible and acquaints teachers with the program.
5. Persons failing should be re-checked by school nurse.
6. No notice of passing to be given.
7. Nurse to complete standard referral form to be sent to the parents of those failing re-check.
8. This form to be completed by eye physician or optical practitioner and given to parents for forwarding to school.

*Symbol "E" Chart is available at 35c through the National Society for Prevention of Blindness, 1790 Broadway, New York 19, N.Y. Publication 180, 5c, containing directions for use of the chart, may be obtained at the same address. However, the Snellen chart may be purchased at most surgical supply houses which carry them in regular stock at approximately $1.50.

(Report form recommended by Committee on Visual Screening of the Eye, Ear, Nose & Throat Section of Washington State Medical Assoc.)

REPORT TO THE PARENTS

Name_____ Grade_____ Date_____

Address_____ Teacher_____

Results of Eye Screening by the Public Health Nurse indicates that your child has a possible eye defect and should be seen by an eye doctor. If you do not know of an eye doctor we suggest that you ask your family physician to recommend one.

Vision R_____ L_____

Teacher reports_____

Other eye symptoms_____

Call_____ regarding any questions.

Signature_____
Title

Please take this form to the Doctor

DOCTOR'S REPORT TO SCHOOL

Glasses:

None needed_____

To be worn_____

Other_____

Best correction to be expected by Glasses: R_____ L_____

Eyes should be rechecked by doctor_____
Date

Other remarks:_____

_____

Date_____ Doctor's Signature_____

Parents Note: PLEASE RETURN THIS REPORT TO THE SCHOOL so it can be made a permanent part of the child's school health record for guidance of the health department and classroom teachers.

Official copies of the above report form recommended by Committee on Visual Screening of the Eye, Ear, Nose & Throat Section of Washington State Medical Association are on 8½ x 11 inch sheets.

9. We recognize that the percentage of cases with active pathology is relatively small among children with poor visual activity, however, if these are not correctly diagnosed and treated the results are often disastrous. Adequate examination generally requires the use of medication. Competent examination and treatment often requires training and experience held only by medical doctors. Proper diagnosis of difficulties often requires examiners who have had adequate anatomic, physiologic, pathologic, medical and surgical classroom and clinical training. We are aware that a type of limited practitioner is licensed by this State. The fact remains, however, that limited type training and experience is often reflected in limited diagnostic and treatment abilities.

(D) *Specific Recommendation*:

1. Type of program to be followed at this time:
   - (a) Check of visual acuity in each eye.
   - (b) Careful consideration of teacher's observation.
   - (c) Adequate follow-up by school authorities:
     - (1) Report form to be sent home with child for doctor's completion and return. Sample form accompanies this report.
     - (2) Permanent health record on each child should be kept continually and is to include eye findings with notation as to type of practitioner.
     - (3) Adequate check system should be applied to assure that referrals are executed and report returned to school in reasonable length of time.
   - (d) Use any funds available to purchase glasses for indigent children rather than purchase expensive testing gear.

2. Experimental Program:

Permissible to be used in certain limited areas to provide statistical evaluation with regard to possible future inclusion in statewide screening program. Extreme care must be used to avoid diagnostic aspect.

- (a) Check of visual acuity in each eye.
- (b) Careful consideration of teacher's observation.
- (c) Adequate follow-up by school authorities:
  - (1) Report form to be sent home with child for practitioner's completion and return.

(Continued on page 804)

(Continued from page 803)

(2) Permanent health record on each child should be kept continuously and is to include eye findings with notation as to type of practitioner.

(3) Adequate check system should be applied to assure that referrals are completed and report returned to school in reasonable length of time.

(d) In addition, Muscle-Balance Screening and Plus Sphere Screening: As found in Atlantic City or Massachusetts screening methods or both. Experimental methods should be registered with State Department of Public Health, stating purpose, methods used and results. We recommend clearance with the Department regarding aims and results to avoid exploitation, unnecessary duplication and to make possible an accumulation of possibly useful data.

3. Specific Method of Screening:
   (a) Snellen illiterate "E" Chart at 20 feet, self-illuminated at plus 10 feet candles without glare, etc. This is carried out by covering one eye at a time. Done by school nurse or teacher. Failures: -20/30 in either eye through second grade. -20/20 in either eye beyond second grade.
   Alphabet chart acceptable in high school.
   (b) Hyperopia and Muscle-Balance Screening: Either the Atlantic City or the Massachusetts Vision Screening methods, whichever is available. While the Atlantic City and Massachusetts methods may eventually prove superior to the recommended methods, they are still under study locally and we recommend these studies be continued. Furthermore, a better modification of the Snellen method than these soon may be improvised by the various medical committees that are now actively studying this problem.
4. Do not check for color vision at this time.
5. Do not check for stereopsis at this time.
6. Standards for referrals:
   (a) Visual Failures
      (1) Those who see less than 20/30 in either eye through second grade.
      (2) Those who see less than 20/20 in either eye after second grade.
   (b) Regarding Hyperopia and Muscle-Balance Screening:
      (1) Where used, the Atlantic City and Massachusetts screening methods should be kept intact for statistical purposes.
      (2) We feel different referral standards would be better, but realize this would create hopeless statistical confusion at this date.

Committee on Visual Screening
Eye, Ear, Nose and Throat Section
Washington State Medical Association.
Barry Brugman, M.D., *Librarian, Seattle*
S. F. Hogsett, M.D., *Spokane*
James Hargiss, M.D., *Seattle*
Louis Hungerford, M.D., *Seattle*
Robert Kaiser, M.D., *Bellingham*
Bruce S. McClellan, M.D., *Renton*
Merlin Mongrain, M.D., *Vancouver*
Harold Waltz, M.D., *Everett*
Earl L. Barrett, M.D., *Chairman, Seattle*

Addendum:

At the January 12, 1957 meeting of the EENT Section of the Washington State Medical Association the Committee on Visual Screening was made a permanent committee.

The members are to serve three year terms, but the terms are not to end simultaneously. The chairman is an ex-officio member of the state's government school health department committee. The Medical Association committee will meet at least two times a year or oftener to review the ocular screening programs in the State of Washington and elsewhere. The chairman, with the approval of the committee members, shall act as free consultant to any government agency or reputable group on visual problems, such as screening. The committee librarian will collect all possible data on the subject and make it available to the committee chairman and members. The members will be as geographically and politically representative as possible.

All of the ophthalmologists in the State of Washington will be informed of its functions and progress. All school health authorities will be contacted and advisory services offered.

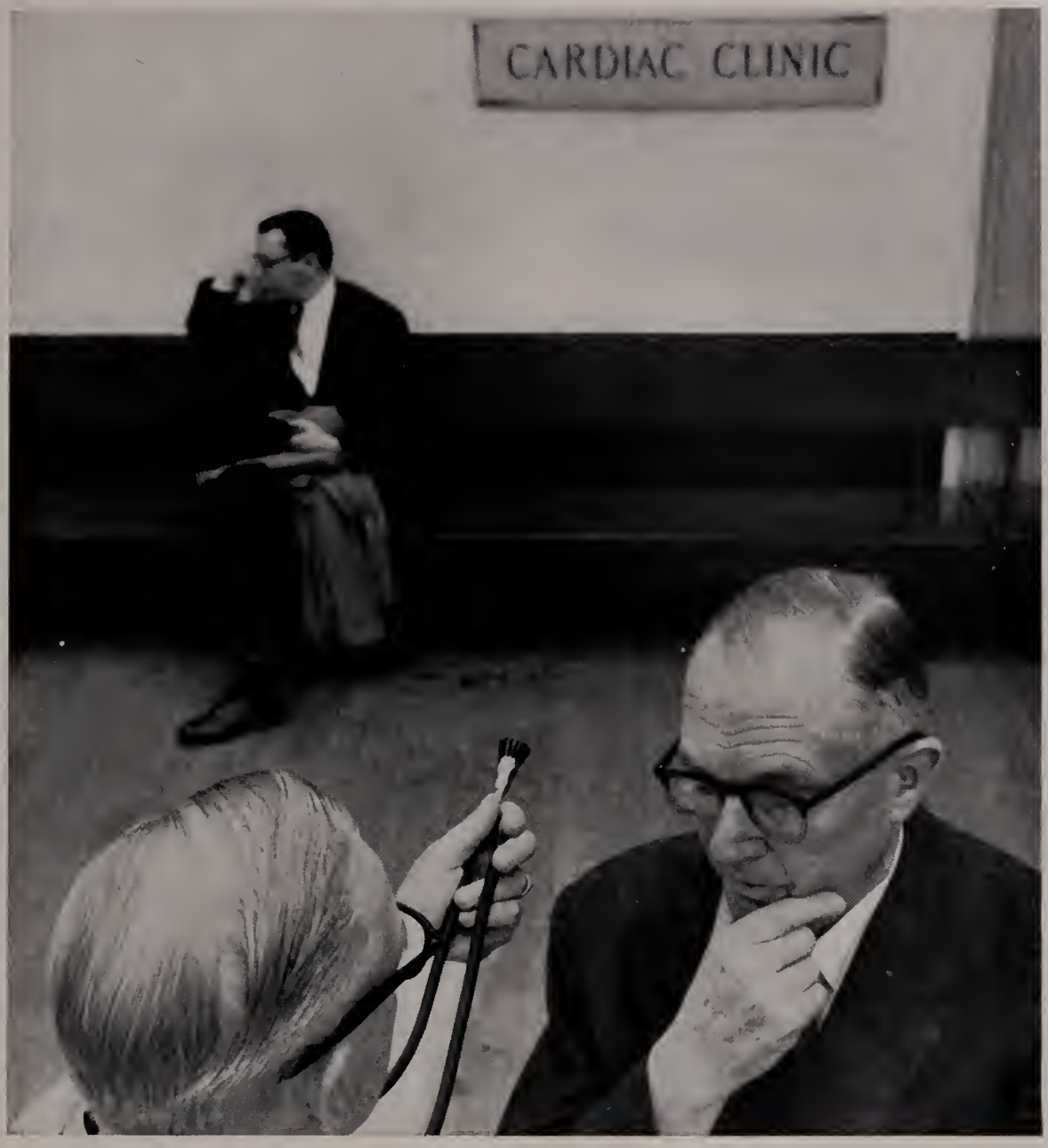
The committee will willingly assist any public service organization but avoid association with any group whose policy is tainted with commercialism or financial gain and is not dictated by the highest ideals of public service.

Obituaries

Dr. Angus S. Williams, 88, died April 16 in a Seattle hospital of bilateral bronchopneumonia. Dr. Williams had practiced in Seattle and Renton until 1955, when he retired from active practice. He was graduated in 1899 from the Medico-Chirurgical College of Philadelphia and was licensed to practice in Washington the same year. From 1906 to 1909, Dr. Williams located in mining communities in Alaska. He was an honorary member of Washington State Medical Society.

Dr. William E. Steele, 71, first industrial physician in the state of Washington, died April 17 of a cerebral thrombosis and intestinal obstruction. Dr. Steele received his medical degree in 1913 from the Hahnemann Medical College of the Pacific, San Francisco. He located in Washington soon after his graduation and practiced in Pe Ell, Lewis County and in Longview and Olympia before moving to Seattle about 30 years ago. From 1933 until 1944, Dr. Steele served as the first medical director of the State Department of Labor and Industry. Then from 1945 to 1953 he was medical director for the Bethlehem Pacific Coast Steel Corp.

Dr. Gordon Wotherspoon, 53, assistant to the medical director of King County Medical Service Corp., died April 19 in a Seattle hospital of a bleeding gastric ulcer with complications and severe rheumatoid arthritis. Dr. Wotherspoon received his medical education at the University of Glasgow Medical Faculty in Scotland, from which he was graduated in 1934. That same year he opened a private practice in Seattle which he left in 1953 to become associated with the medical service corporation. During the Second World War, he served as a captain in the Army Air Corps.



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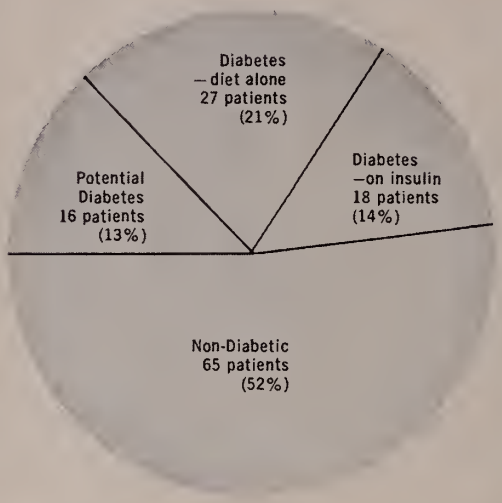
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*Murphy, R.: Connecticut M. J. *21*:306, 1957.

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National Association of Claimants' Compensation Attorneys (NACCA)

The medical-legal seminar of the Washington Chapter of the National Association of Claimants' Compensation Attorneys was held at the Roosevelt Hotel April 18 and 19, 1958. The following is copied from the official announcement of the meeting.

NACCA is dedicated to the proper and well qualified investigation, preparation, trial and settlement of claims of injured persons to the end that they receive that money compensation for their injuries and losses to which they are justly and fairly entitled.

Roosevelt Hotel, Friday 8 A.M. to 9 A.M.
REGISTRATION: Mezzanine Floor
PROGRAM: Friday, April 18th
Moderator: Hugh Miracle

9:00 to 9:15 Formal Opening of Seminar, and Welcome Address, T. E. Peterson, President, NACCA of Washington.

9:15 to 9:45 Address of Welcome and Remarks upon the Recent Improvement of Trial Technique, Hon. James W. Hodson, Presiding Judge, Superior Court, King County.

9:45 to 11:00 "The Proper and Effective Use of Court Rules, (including pre-trial procedure) and, Pending Changes in Rules, The Hon. Matthew W. Hill, Chief Justice, Supreme Court of State of Washington.

11:00 to 12:00 What Constitutes a full and fair "independent" medical examination and report thereon, upon behalf of the Defense. Drs. Howard Rickett and John Callahan, Orthopedic Physicians and Dr. John Mullins, Neurological Specialist.

LUNCHEON: ROOSEVELT HOTEL
Moderator: James P. Healy, Tacoma

1:45 to 2:30 Proving the Case Against the Dead Tort Feasor, John Sullivan, Seattle.

2:30 to 3:15 Detrimental Effect upon the eyes and eyesight, caused by cervical injury. Moray Girling, M.D. Occulist.

3:30 to 4:15 Strict Liability Under Federal Tort Claims Act, Prof. Cornelius Peck, University of Washington, School of Law.

4:15 to 5:00 Discussion and Questions from Floor of Current Questions and Problems in the Personal Injury Field, John Walthew, Seattle, Moderator.

PROGRAM: Saturday, April 19th
Moderator: Sam Fancher, Spokane, Washington

9:30 to Noon "Proper Jury Instructions in Personal Injury Litigation, and an evaluation of Uniform Jury Instructions, of King County."
Edward J. Pollock, Los Angeles, California, Attorney Co-Editor of Baji, California Jury Instructions, will make the principal address, followed by a Panel Discussion:
Panel Members: Hon. Ward Roney, Judge—Superior Court of King County, Stanley Soderland and Frederick Orth, Attorneys. Questions from floor will be permitted.
NOTE: Bring your copy of King County Uniform Instructions.

LUNCHEON: ROOSEVELT HOTEL
Moderator: Henry Arnold Peterson, Tacoma

1:30 to 2:30 Emotional Trauma Neuroses, and Functional Injury without Organic Damage. Medical Panel: A. Bernard Gray, M.D. (Orthopedist), A. Mark Hurley, M.D., (Psychiatrist), and Audrey Holiday, Ph.D., (Psychologist).

2:30 to 4:00 Liability on Breach of Warranty, Negligence or Absolute Liability theories for injury or death resulting from vaccines, inoculations and other injections. Lou Ashe, Attorney, San Francisco, California, partner, Belli, Ashe, McBride and Geary.

4:00 to 5:00 A complete Orthopedic and Neurologic Examination will be conducted, with full explanation of tests, their functions and significance. Kenneth L. Martin, M.D., (Orthopedist) and Gerald P. Nowlis, M.D., (Neurological Specialist).

NACCA does not solicit memberships, but does welcome as members all attorneys whose practice in the personal injury field, is primarily on behalf of the injured.

NACCA National membership fee is $20.00 per year, which includes without added costs, NACCA LAW JOURNALS.

NACCA of WASHINGTON membership fee is $10.00 per year.

Local Round Table NACCA discussion groups exist in principal cities for frequent discussion of current questions and problems and for presentation of speakers in the medical, legal, and scientific fields to better qualify attorneys practicing personal injury law.

Spokane Hospital Has Pump-Oxygenator

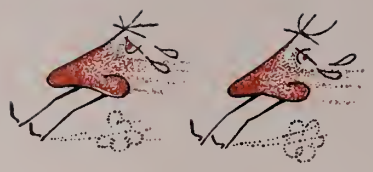
Funds amounting to approximately $4,600 have been used by the northeastern branch of Washington State Heart Association in the procurement and development of the pump-oxygenator at Sacred Heart Hospital in Spokane. The contribution makes the Association one of the major contributors to this community service project. The machine and the research facilities have been provided by the Sisters of Providence of the hospital.

Clark County Medical Society

Regular monthly dinner meeting of Clark County Medical Society was held at the Royal Oaks Country Club on Tuesday evening, May 6. A large turnout greeted Milo Harris, president of the Washington State Medical Association, and Mr. Ralph Neill, executive secretary. Dr. Harris spoke on Medical Society Activities on a State and County Basis, and Mr. Neill discussed Legislative, Malpractice, and Defense Fund Matters.



running noses . . .



caused by pollen allergies

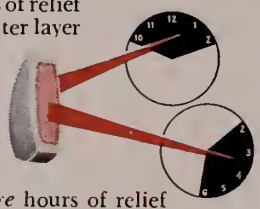
TRIAMINIC stops rhinorrhea, congestion and other distressing symptoms of summer allergies, including hay fever. Running nose, watery eyes and sneezing are best relieved by antihistamine *plus* decongestant action—systemically—with TRIAMINIC.

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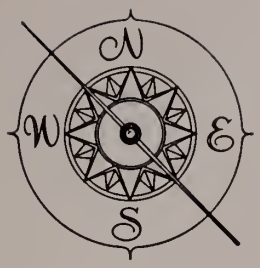
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Idaho



IDAHO STATE MEDICAL ASSOCIATION
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SIXTY-SIXTH ANNUAL MEETING
July 6-9, 1958
Sun Valley

President, H. B. Woolley, M.D., Idaho Falls Secretary, W. B. Ross, M.D., Nampa Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

Memorial Lectures Set for Annual Meeting

Four Memorial Lectures will be presented by Guest Speakers during the 66th Annual Meeting.

A new lecture, the Walter R. West, M.D., Memorial Lecture, sponsored by Mrs. W. R. West, Idaho Falls, will be presented by Carl A. Moyer.

The W. A. Tall Memorial Lecture, sponsored by Asael and Aldon Tall of Rigby, and members of their family, will be presented by Ralph C. Benson.

The Alexander Braclay, Sr., M.D., Memorial Lecture, sponsored by Mrs. Alexander Barclay, Sr., Coeur d'Alene, will be presented by C. Donald Creevy.

The H. Smith Woolley Memorial Lecture, sponsored by Hoyt B. Woolley and family, Idaho Falls, will be presented by Don H. O'Donoghue.

The Clayton Jones Memorial Lecture, sponsored by Arthur Curtis Jones and family, Boise, will not be presented this year.

State Association Officers Visit Component Medical Societies

During April, President Woolley and other Association Officers visited the four component medical societies in North Idaho.

The visits started with officers and members of the North Idaho District Medical Society in Lewiston on Wednesday, April 16; with the Kootenai-Benewah Society in Coeur d'Alene on Thursday, April 17; a luncheon meeting with members and officers of the Bonner-Boundary Society in Sandpoint on April 18; and a dinner meeting with officers and members of the Shoshone County Medical Society in Wallace on the evening of April 18.

Making the visits in addition to President Woolley, were President-Elect Donald K. Worden, Lewiston; Secretary-Treasurer W. B. Ross, Nampa; Councilor, District No. One, Robert E. Staley, Kellogg; Program Chairman Fred E. Wallber, Idaho Falls; Idaho AMA Legislative Chairman E. V. Simison, Pocatello; President, Woman's Auxiliary, Mrs. E. R. W. Fox, Coeur d'Alene, and Exccutive Secretary Bird.

Association Officers also made visits to four societies in Southeastern Idaho early in May. The societies and dates visited are as follows: Bear River Valley Medical Society, Soda Springs, May 6; Upper Snake River Medical Society, St. Anthony, May 7; Southeastern Idaho District Society, Pocatello, May 8, and Idaho Falls Medical Society, Idaho Falls, May 9.

Fifty-Year Physicians To Be Honored During 66th Annual Meeting

Plans are being made to bestow high honors during the 66th Annual Meeting on Idaho physicians who have been in practice 50 years or more. The following list has been compiled in the State Office, but may not be complete. If you know of any physician residing in the state whom you think would qualify, please send their names and year of graaduation from medical school to the State Office.

Names of physicians and their year of graduation, currently on the State Office list, include:

Ethel P. Westwood, Sandpoint, 1899; Joseph H. Murray, Meridian, 1899; J. M. Lyle, Lewiston, 1902; George O. A. Kellogg, Nampa, 1903; D. C. Ray, Pocatello, 1903; Fred A. Pittenger, Boise, 1905; H. H. King, Montpelier, 1905; Robert H. Wright, Hailey, 1906; C. M. Cline, Idaho Falls, 1907; C. J. Kinsolving, St. Maries, 1908; H. C. Mowery, Wallace, 1908; A. R. Soderquist, Idaho Falls, 1908; William F. Tyler, Sandpoint, 1908; E. W. Fox, Hailey, 1908; and Sam W. Forney, Boise, 1908.

President Woolley Names Members of House Reference Committees

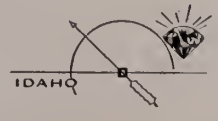
President Hoyt B. Woolley has appointed the following to serve as members of the Association's House of Delegates Reference Comittees:

LEGISLATION AND PUBLIC RELATIONS
Raymond L. White, Boise, *Chairman*
G. Curtis Waid, Idaho Falls
Joseph B. Koehler, Pocatello
Jerome K. Burton, Boise

INSURANCE, MEDICAL AFFAIRS AND WELFARE
Murland F. Rigby, Rexburg, *Chairman*
A. M. Peterson, Wallace
Lee Nowierski, Boise
Wallace H. Pierce, Lewiston

OFFICERS AND SECRETARY
Richard D. Simonton, Boise, *Chairman*
E. R. W. Fox, Coeur d'Alene
Wallace Bond, Twin Falls
Allen H. Tigert, Soda Springs

MISCELLANEOUS BUSINESS
Alexander Barclay, Jr., Coeur d'Alene, *Chairman*
Reuben C. Matson, Jerome
Melvin M. Graves, Pocatello
O. D. Hoffman, Rexburg



County Societies Elect Officers

Newly elected officers for the Southeastern Idaho District Medical Society for the coming year include:

PRESIDENT—Louis G. Bush, Pocatello.

PRESIDENT-ELECT—W. L. Olson, Pocatello.

SECRETARY-TREASURER—J. E. Comstock, Pocatello, (re-elected)

New officers for the Idaho Falls Medical Society for the coming year are:

PRESIDENT—G. Curtis Waid, Idaho Falls.

VICE-PRESIDENT—Robert S. Butz, Idaho Falls.

SECRETARY-TREASURER—James D. Davis, Idaho Falls.

S. M. Poindexter Honored by National Group

S. M. Poindexter, Boise, chairman of the Idaho State Board of Medicine, received high recognition for his outstanding work in the preparation of the "Guide to the Essentials of a Modern Medical Practice Act" during the 54th Annual Meeting of the Federation of State Medical Boards held in Chicago February 8-12. A resolution commending Dr. Poindexter was unanimously adopted at the meeting.

During the session, Dr. Poindexter also served as Chairman of the Committee on Reports of Officers and Committees of the Federation.

Pediatric Surgery Problems Discussed

Dean W. Tanner of Ogden, assistant clinical professor of surgery at the University of Utah College of Medicine, was guest speaker at the April dinner meeting of the South Central Idaho Medical Society at Magic Valley Memorial Hospital, Twin Falls. Dr. Tanner spoke on common problems in pediatric surgery.

Location

Paul F. Miner, who left Boise in December 1956 to practice in Denver and to become associated on a part-time basis with the University of Colorado School of Medicine, has opened his office in the Eastman Building, Boise, for the private practice of internal medicine.

State Board of Medicine

Joseph E. Baldeck, Lewiston, has been appointed a member of the State Board of Medicine by Gov. Robert E. Smylie to succeed Paul M. Ellis of Wallace who has resigned. Dr. Baldeck's appointment will run until 1961. Dr. Ellis has served on the State Board of Medicine since 1949 and last August accepted the Governor's appointment as Chairman of the new State Board of Health. More than 15 years ago, Dr. Baldeck served as a member of the Medical Licensing Examining Committee.

Two Temporary Licenses were granted in April. Receiving them were:

Gordon Wesley Johnson, Caldwell. Graduate University of Colorado School of Medicine, Denver. M.D. Degree 1957. Internship Bernalillo County-Indian Hospital, Albuquerque, N. M., 1958. Granted T-204 April 25. General.

Burt Read Erickson, Caldwell. Graduate University of Colorado School of Medicine, Denver. M.D. Degree 1957. Internship Bernalillo County-Indian Hospital, Albuquerque, N. M., 1958. Granted T-205 April 25. General.

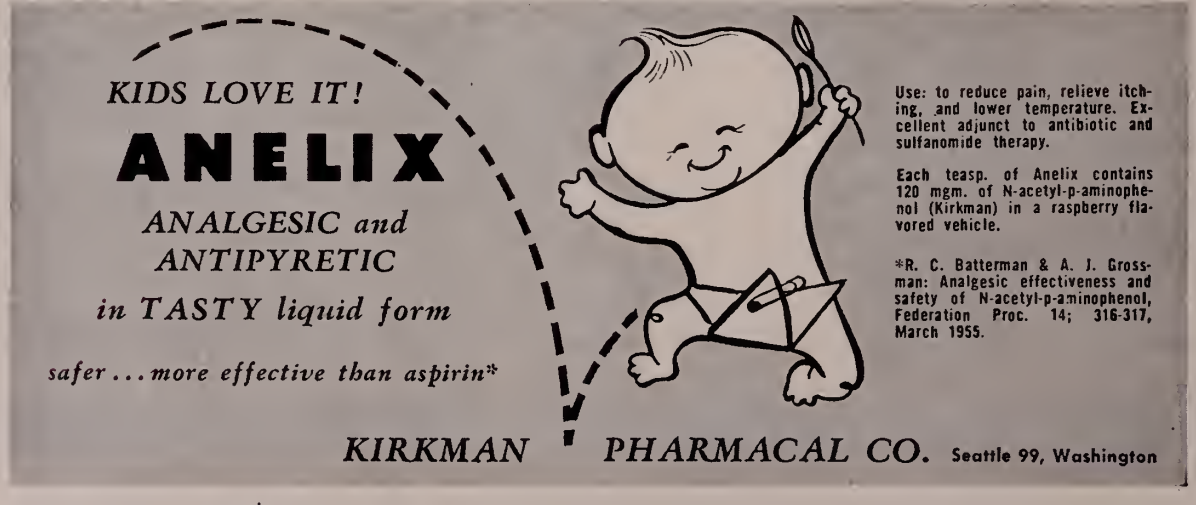
Ada County Health Director Named

J. E. Wyatt has announced that he will assume the duties of director of Ada County Health Department in Boise early this month. Dr. Wyatt for the past four years held a similar position in Pocatello as director of the Southeast District Health Department.

Dr. Wyatt is making the change at the request of Terrel O. Carver, State Health Department Administrator. Dr. Carver held the post of director of the Ada County Health Department before his appointment to the state department.

Mental Health Committee Meets

The Association's Mental Health Advisory Committee held a dinner meeting in Boise May 2. Dale D. Cornell, Boise, is chairman of the committee. Other members include: Maurice M. Burkholder, Boise; Glenn Voyles, Twin Falls; John L. Butler, Boise; and Glen M. Whitesel of Kellogg.





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*Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension, Postgrad. Med. *23*:41 (Jan.) 1958.

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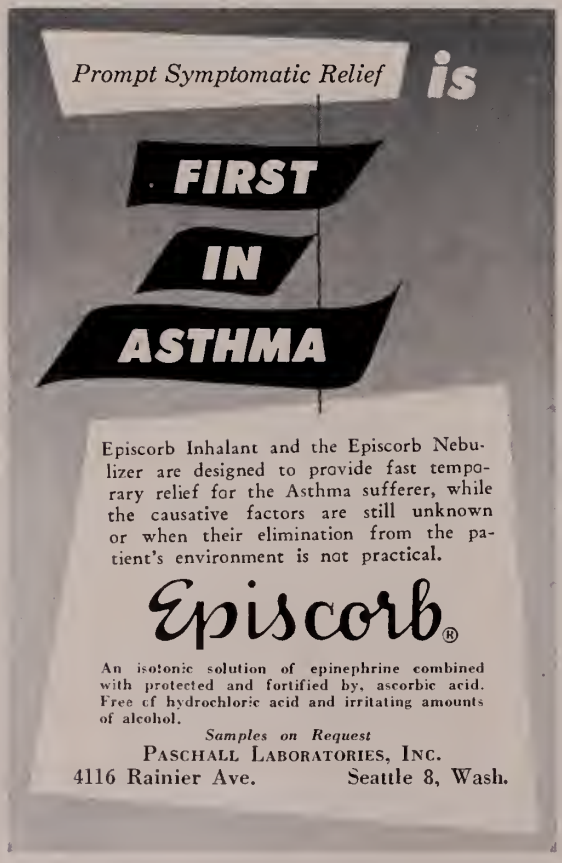
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This will be one of the finest art shows ever held by the organization in the past 21 years. Anyone from Oregon, Washington or Idaho interested in joining or exhibiting, please communicate with Edmund H. Smith, M.D., Northwest Regional Director, 3434 Cascadia Avenue, Seattle 44, Wash.

Pacific Coast Oto-Ophthalmological Society Honors Boise Surgeon at Annual Meeting

Arthur C. Jones, Boise surgeon, was guest of honor at the 42nd Annual Meeting of the Pacific Coast Oto-Opthalmological Society which was held in Vancouver, B.C., May 11-15. Dr. Jones, a past-president of the society and currently a member of the governing council of the group, was presented with high honors at the general session on May 12. Presentation was made by Merle Taylor of Portland, who is also a former president of the society.

Dr. Jones is a past-president of the Idaho State Medical Association and the Idaho chapter of the American College of Surgeons. He has practiced in Boise since 1921.

Neurologists and Psychiatrists Elect

At the annual meeting of the North Pacific Society of Neurology and Psychiatry held in Victoria, B.C., April 11-12, the following men were named to head the group for the coming year: John W. Evans, Portland, president; J. Lester Henderson, Seattle, president-elect; and Robert M. Rankin, Seattle, secretary-treasurer. Those on the executive committee are: Robert Dow, Portland; Peter Lehman, Vancouver, B.C.; and Wallace W. Lindahl, Seattle.

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RECEIVED

The fallawing baaks have been received. Publicatian or this acknawledgment is ta be considered adequate return ta the sender. Selected titles will be reviewed as space permits.

Dr. W. C. Roentgen. Ed. 2. By Otto Glasser, Ph.D., F.A.C.R. (Assoc.), Holder of Roentgen-Honor-Plaque of the Roentgen-Museum in Remscheid-Lennep, 1951; Professor of Biophysics, Frank E. Bunts Educational Institute Head, Department of Biophysics, Cleveland Clinic Foundation, Cleveland, Ohio. 169 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Roentgenology of the Chest. Sponsored by the American College of Chest Physicians. Edited by Coleman B. Rabin, M.D., F.C.C.P., Attending Physician and Associate Radiologist for Chest Diseases, The Mount Sinai Hospital, New York City; Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University; Consultant Physician for Chest Diseases, Veterans Administration, Brooklyn Regional Office and East Orange Hospital and Beth El Hospital, Brooklyn, New York. Editorial Committee: Benjamin M. Gasul, M.D.; Burgess L. Gordon, M.D.; J. Winthrop Peabody, Sr., M.D.; Leo G. Rigler, M.D.; Israel Steinberg, M.D.; and Harold G. Trimble, M.D. 484 pp. Illustrated. Price $19.50. Charles C Thomas, Springfield, Ill. 1958.

High Arterial Pressure. By F. H. Smirk, M.D., F.R.C.P., F.R.A.C.P., Professor of Medicine, University of Otago, Dunedin, New Zealand. 764 pp. Price $15.00. Charles C Thomas, Springfield, Ill. 1958.

Connective Tissue—A symposium organized by the Council for International Organizations of Medical Sciences established under joint auspices of UNESCO and WHO. Edited under direction of R. E. Tunbridge, The University of Leeds; by Madeline Keech, the University of Leeds; J. F. Delafresnaye, C.I.O.M.S., Paris; and G. C. Wood, The University of Leeds. 371 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

Human Infertility. By C. Lee Buxton, M.D., Med.Sc.D., Professor and Chairman, Department of Obstetrics and Gynecology, Yale University School of Medicine, New Haven; and Anna L. Southam, M.D., Assistant Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University and Director of Sloane Hospital Infertility Clinic, New York. With a chapter on Endometrial Diagnosis by Earl T. Engle, Ph.D., Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York. 229 pp. Illustrated. Price $7.50. Paul B. Hoeber, Inc., New York. 1958.

You Can Increase Your Heart-Power. By Peter J. Steincrohn, M.D., F.A.C.P. 381 pp. Price $4.95. Doubleday & Co., Garden City, N. Y. 1958.

The Chemical Dynamics of Bone Mineral. By William F. Neuman, Ph.D., Associate Professor of Biochemistry and Pharmacology, University of Rochester; and Margaret W. Neuman, B.S., Instructor in Pharmacology, University of Rochester. 209 pp. Illustrated. Price $5.00. University of Chicago Press, Chicago. 1958.

A Manual of Electrotherapy. By Arthur L. Watkins, M.D., Assistant Clinical Professor of Medicine, Harvard Medical School; Chief of Physical Medicine, Massachusetts General Hospital; Medical Director, Bay State Medical Rehabilitation Clinic, Boston, Mass. 259 pp. 167 Illustrations. Price $5.00. Lea & Febiger, Philadelphia. 1958.

Ciba Foundation Symposium on the Chemistry and Biology of Mucopolysaccharides. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Maeve O'Connor, B.A. 323 pp. 48 illustrations. Price $8.50. Little, Brown & Co., Boston. 1958.

(Continued on page 817)



premenstrual

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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

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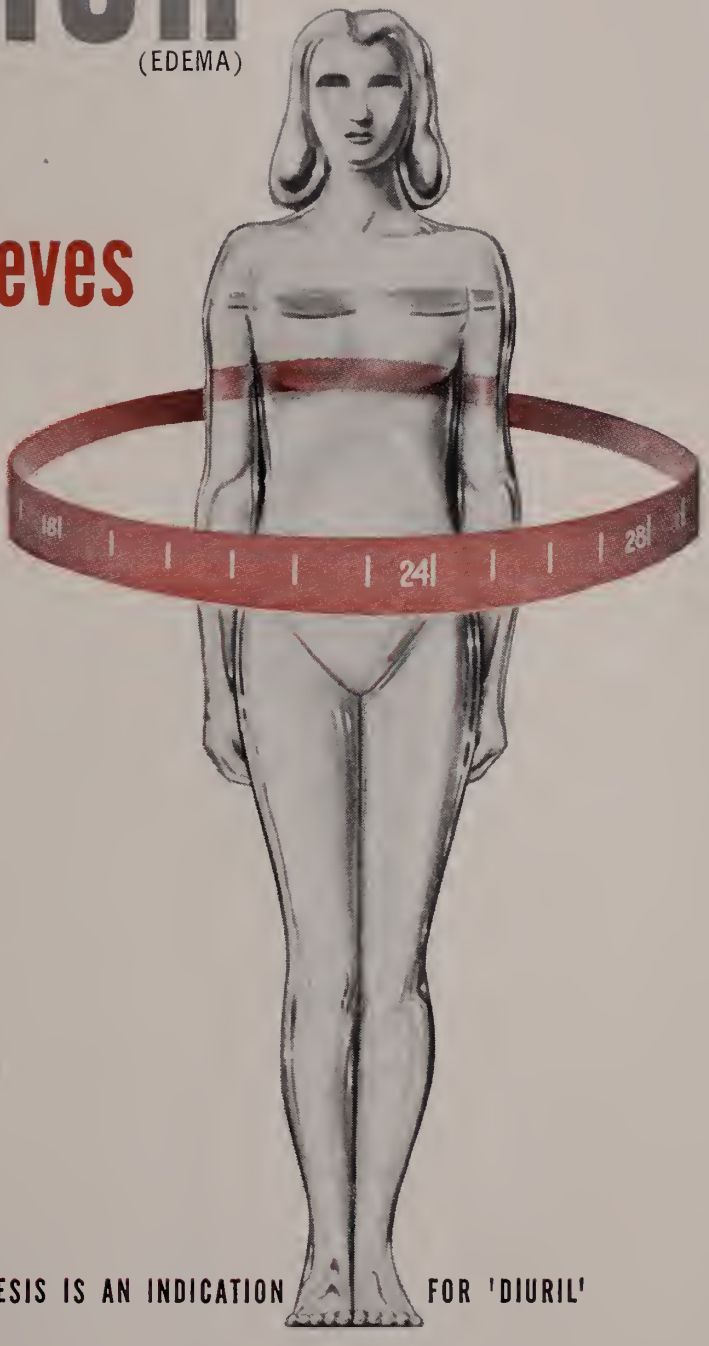
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(Continued from page 813)

Our Nuclear Adventure: Its Possibilities and Perils. By D. G. Arnott. 170 pp. Price $6.00. Philosophical Library, New York. 1958.

Viral Encephalitis. A Symposium of the Fifth Annual Scientific Meeting of the Houston Neurological Society, Texas Medical Center, Houston, Texas. Compiled and Edited by William S. Fields, Professor and Chairman, Division of Neurology, Baylor University College of Medicine; and Russell J. Blattner, Professor and Chairman, Department of Pediatrics, Baylor University College of Medicine. 225 pp. Illustrated. Price $7.00. Charles C Thomas, Springfield, Ill. 1958.

Fat Consumption and Coronary Disease: The Evolutionary Answer to This Problem—A Basic Approach to Prevention and Arrest of Coronary Disease. By T. L. Cleave, M.R.C.P. (Lond.), Surgeon Captani, Royal Navy. With a Foreword by Percy Stocks, C.M.G., M.A., M.D. (Camb.), F.R.C.P. (Lond.), F.S.S., Senior Research Fellow, British Empire Cancer Campaign, Late Reader in Medical Statistics, Galton Laboratory, University of London; Chief Medical Statistician, General Register Office. 40 pp. Price $2.50. Philosophical Library, New York. 1958.

The Atomic Age and Our Biological Future. By H. V. Brondsted, Formerly Professor of Zoology, University of Copenhagen. Translated by E. M. Huggard. 79 pp. Price $2.75. Philosophical Library, New York. 1958.

Functional Bracing of the Upper Extremities. Written and Illustrated by Miles H. Anderson, Ed. D., Director, Prosthetics Education Project, School of Medicine, University of California, Los Angeles. Edited by Raymond E. Sollars, Associate Director, Prosthetics Education Project, School of Medicine, University of California. 463 pp. Price $9.50. Charles C Thomas, Springfield, Ill. 1958.

Drugs of Choice 1958-1959. Edited by Walter Modell, M.D., Associate Professor of Pharmacology, Cornell University Medical College; Attending Physician, New York Veterans Administration Hospital; Association Visiting Physician, Bellevue Hospital; Member, Poison Control Advisory Board of New York City; Member, Revision Committee, United States Pharmacopeia XVI. 931 pp. Price $12.75. The C. V. Mosby Co., St. Louis. 1958.

Analyzing Psychotherapy. By Solomon Katzenelbogen, M.D., Formerly, Professor of Psychiatry, George Washington University and Johns Hopkins Medical School. 126 pp. Price $3.00. Philosophical Library, New York. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlamert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

LIVER-BRAIN RELATIONSHIPS. By Ian A. Brown, M.D., Ph.D., Associate Professor of Neurology, Division of Neurology, Department of Neurology and Psychiatry, University of Minnesota. 198 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Ill. 1957.

On occasions a monograph will be presented to the profession that gives evidence of a detailed and thorough knowledge of the subject and a familiarity with the world literature on that subject. In addition it will be presented in excellent form, and be written with considerable clarity. It will be concise and yet approach the proportions of a reference book, with an extensive bibliography.

This is such a text.

It has been written primarily for the physician interested in internal medicine, and the physician interested in neurology. It represents a successful attempt to deal with a problem common to both fields—namely, liver disease and the central nervous system complications that can result therefrom.

It was written with the neurologist in mind who might wish a concise review of the functions and anatomy of the liver, and current tests used in the study of liver disease.

The internist was also considered in the discussion of the anatomy of the blood-brain barrier, cerebral blood flow, and the physiologic and pathologic effects of certain enzymes and minerals on the brain itself.

Chief value of the book to the clinician lies in the careful analysis of 42 patients with hepatic disease in coma, and 40 patients with hepatic disease without coma. Based on this case material, clinical and pathologic features were discussed and tabulated. The biochemical aspects of the problem were presented, and an attempt was made to relate the various aspects of liver and brain disease.

The final chapter, entitled Possibilities, Speculations and Conclusions, summarizes the present knowledge of liver-brain relationships and points the way to further research in this area.

John R. Mullins, M.D.

(Continued on page 831)

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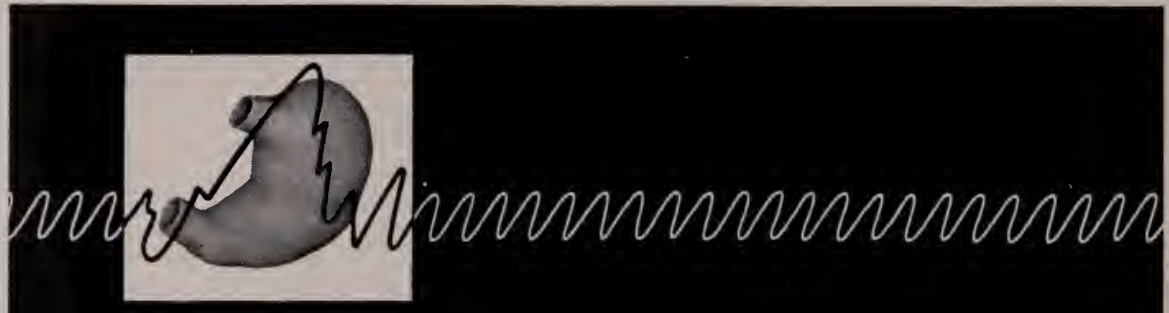
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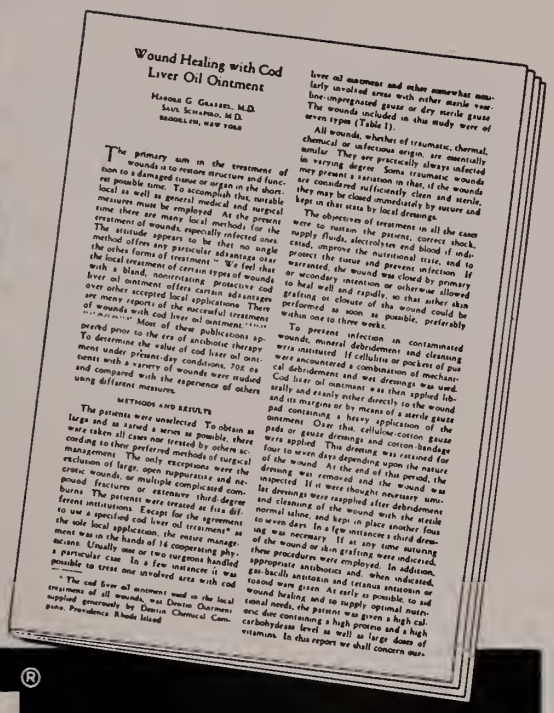
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Wound Healing with Cod Liver Oil Ointment

Harold G. Grayzel, M.D.
Saul Schapiro, M.D.
Brooklyn, New York

The primary aim in the treatment of wounds is to restore structure and function to a damaged tissue or organ in the shortest possible time. To accomplish this, suitable local as well as general medical and surgical measures must be employed. At the present time there are many local methods for the treatment of wounds, especially infected ones. The attitude appears to be that no single method offers any particular advantage over the others forms of treatment." We feel that the local treatment of certain types of wounds with a bland, nonirritating protective cod liver oil ointment offers certain advantages over other accepted local applications. There are many reports of the successful treatment of wounds with cod liver oil ointment.[1-11] Most of these publications appeared prior to the era of antibiotic therapy. To determine the value of cod liver oil ointment under present-day conditions, 70[1] patients with a variety of wounds were studied and compared with the experience of others using different measures.

METHODS AND RESULTS

The patients were unselected. To obtain as large and as varied a series as possible, there were taken all cases now treated by others according to their preferred methods of surgical management. The only exceptions were the excision of large, open suppurative and necrotic wounds, or multiple complicated compound fractures or extensive third-degree burns. The patients were treated at five different institutions. Except for the agreement to use a specified cod liver oil treatment* as the sole local application, the entire management was in the hands of 16 cooperating physicians. Usually one or two surgeons handled a particular case. In a few instances it was possible to treat one involved area with cod liver oil ointment and other somewhat similarly involved areas with other sterile vaseline-impregnated gauze or dry sterile gauze dressings. The wounds included in this study were of seven types (Table I).

All wounds, whether of traumatic, thermal, chemical or infectious origin, are essentially similar. They are practically always infected in varying degree. Some traumatic wounds may present a striking picture in that, if the wounds are considered sufficiently clean and sterile, they may be closed immediately by suture and kept in that state by local dressings.

The objectives of treatment in all the cases were to sustain the patient, correct shock, supply fluids, electrolytes and blood if indicated, improve the nutritional state, and to promote the tissue and prevent infection. If warranted, the wound was closed by primary or secondary intention or otherwise allowed to heal well and rapidly, so that either skin grafting or closure of the wound could be performed as soon as possible, preferably within one to three weeks.

To prevent infection in contaminated wounds, mineral debridement and cleansing were instituted. If cellulitis or pockets of purulence were encountered a combination of mechanical debridement and wet dressings was used. Cod liver oil ointment was then applied liberally and evenly either directly to the wound and its margins or by means of a sterile gauze pad containing a heavy application of the ointment. Over this, cellulose-cotton gauze pads or gauze dressings and cotton bandages were applied. This dressing was retained for four to seven days depending upon the nature of the wound. At the end of this period, the dressing was removed and the wound was inspected. If it were thought necessary, similar dressings were reapplied after debridement and cleansing of the wound with the sterile normal saline, and kept in place another four to seven days. In a few instances a third dressing was necessary. If at any time suppuration of the wound or skin grafting were indicated, these procedures were employed. In addition, appropriate antibiotics and, when indicated, gas-bacillus antetoxin and tetanus antitoxin or toxoid were given. As early as possible, to aid wound healing and to supply optimal nutritional needs, the patient was given a high caloric diet containing a high protein and a high carbohydrate level as well as large doses of vitamins. In this report we shall concern ourselves

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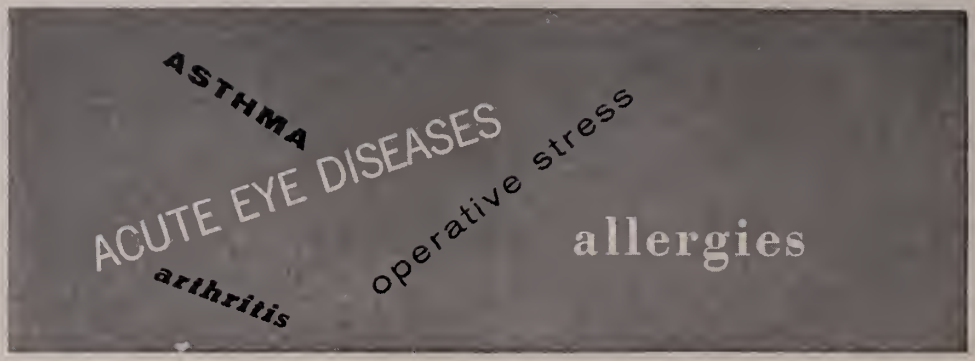


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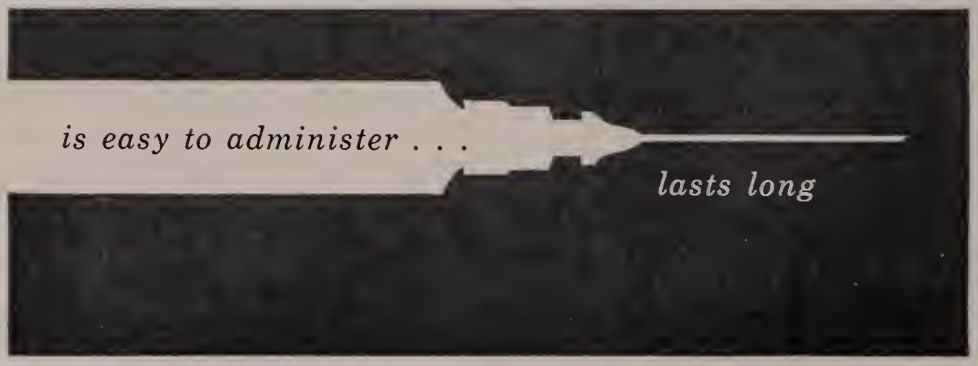
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1. Grayzel, H. G., and Schapiro, S.: Western J. Surgery, Obstet. & Gyn., Oct. 1956.



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(1) Hansen, A. E., et al.: Fed. Proc. *16:* 387, 1957.

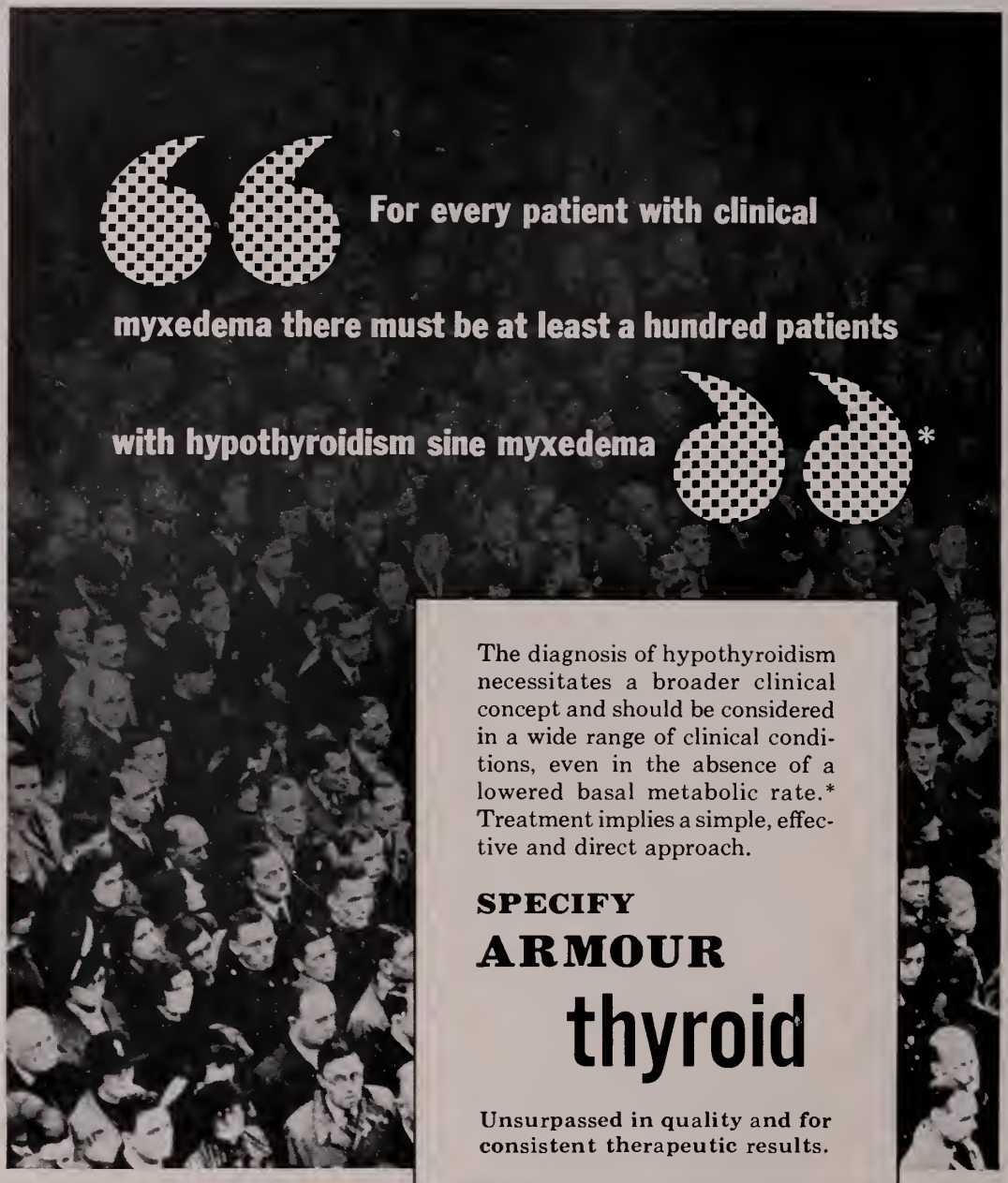
(2) Hansen, A. E.: Pediat. *21:* 494, 1958.

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*Starr, P.: Postgrad. Med. 17:73, 1955.

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(Continued from page 817)

DIAGNOSIS AND TREATMENT OF INFECTIONS. By D. Geraint James. M.A., M.D.(Cantab.), M.R.C.P. (Lond.), Clinical Assistant, The Middlesex Hospital, London. 234 pp. Price $6.00. Charles C Thomas, Springfield, Ill. 1957.

With the rapid advances in the field of antibiotics and chemotherapy, a book on these subjects may be compared to a book on airplane design. It is somewhat obsolete by the time it is published and reviewed. But this book by a British author utilizes liberally the then current literature (1956-1957) and opinions of world authorities. Short, concise descriptions are arranged into three parts. The first part deals with the chemotherapeutic agents. Part two describes the microorganisms individually, and part three describes infections as they present in various systems. There are many charts which would, no doubt, appeal to the medical student just about to take his final examination but offer little practical use except bitter nostalgia.

This book is a monologue and not meant as a reference textbook. It can be quickly read in its entirety and would offer a rapid review of the field of infections and antibiotics for those who desire it. There are several short sections on drug sensitivity reactions and bacterial resistance that are highly worthwhile.

Abbey Franklin, M.D.

ANTIBIOTICS ANNUAL 1957-1958, Proceedings of Fifth Annual Symposium on Antibiotics, October 2, 3, and 4, 1957, Washington, D.C. Edited by Henry Welch, Ph.D., Director, Division of Antibiotics, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D.C.; and Feliz Marti-Ibanez, M.D., Professor and Director of Department of History of Medicine, New York Medical College, New York, N.Y. 1070 pp. Price $12.00. Medical Encyclopedia, Inc., New York. 1958.

This volume is a collection of papers presented at the Fifth Annual Antibiotic Symposium at Washington, D.C., last October. Many of the articles represent important contributions to this rapidly advancing field. The average physician will not be interested in reading through the book, but may find it a useful source of reference. There is a good subject index, with references to the latest information concerning amphotericin B, ristocetin and vancomycin. In addition, there are good panel discussions of rheumatic fever prophylaxis, host resistance and chemotherapy, and antibiotics as antitumor and antiviral substances.

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Clinical Meetings
Minneapolis, Dec. 2-5, 1958 Dallas, Dec. 1-4, 1959

Oregon State Medical Society ..... Sept. 3-5, 1958, Portland
Pres., V. W. Miller, Solem Sec., M. H. Parratt, Portland

Washingtan State Medical Association .... Sept. 14-17, 1958, Spokane
Pres., M. T. Horris, Spakane Sec., F. A. Tucker, Seattle

Idaho State Medical Association ..... Sun Valley
July 6-9, 1958 June 14-17, 1959
Pres., H. B. Woalley, Idaho Falls Sec., W. B. Rass, Nampa

Alaska Territorial Medical Assaciation 1959
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Ancharage

North Pacific Society af Internal Medicine—Aug. 29-30, 1958
Victoria, B.C.
Pres., B. F. Francis, Seattle Sec., J. H. Cramptan, Seattle

Northwest Proctologic Society ..... Sun Valley, Aug. 27-29, 1958
Pres., A. E. Lewis, Seattle Sec., J. L. McKay, Seattle

Pacific Northwest Obstetrical and Gynecological Association .. Seattle
June 30-July 2, 1958
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Oregon Academy of General Practice ..... Portland, Oct. 16-17, 1958
Pres., B. L. Trelstad, Solem

Oregan Academy of Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. thraugh May), Henry Thiele's, Portland
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Oregon Dermatologic Society ..... Portland, Secand Wednesday (Nov., Jan.-Apr.)
Pres., T. S. Saunders, Partlond Sec., L. F. Ray, Partland

Oregon Pathologists Association—Second Wednesday, Feb., Apr., Oct., Dec. — Partland
Pres., H. Harris, Portland Sec., J. H. Lium, Partland

Oregon Radialagical Society—Second Wednesday through schaal year—University Club, Partland
Pres., J. W. Loamis, Partland Sec., C. V. Allen, Partland

Oregan State Saciety of Anesthesiologists ..... Portland, Third Friday (except June, July, Aug.)
Pres., C. H. Hogmeier, Partlond Sec., D. P. Dabsan, Beaverton

Portland Academy of Hypnosis ..... Third Manday (Sept.-May)
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Pres., E. G. Darland, Seattle Sec., J. L. Horgiss, Seattle

Puyallup Valley Surgical Society ..... Faurth Tuesday (Sept.-May)
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Seattle Academy of Surgery ..... Nov. 20, 1958
Third Friday, Sept., Nav., Jan., Mar.
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Seattle Gynecalagical Society ..... Third Wednesday (except June, July, Aug., Dec., Feb.)
Pres., P. G. Peterson Sec., L. B. Donaldson

Seattle Pediatric Society ..... Third Friday (Sept.-May), College Club
Pres., Paul Betzald Sec., C. Razgay

Seattle Surgical Sacietv ..... Jan. 30-31, 1959
Faurth Monday, Sept.-May
Pres., W. E. Watsan Sec., W. O. Mills

Spokane Academy of General Practice ..... Dec. 6, 1958
Pres., D. W. McKinlay Sec., R. H. Ganz

Spokane Sacietv af Internal Medicine ..... April 10, 1959
Pres., O. C. Olsan Sec., R. P. Parker

Spokane Surgical Society ..... April 11, 1959
Pres., R. H. Humphreys Sec., E. B. Caulter

Tacoma Academy of Internal Medicine ..... March 14, 1959
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Tacoma Surgical Club ..... May 2, 1959
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Pres., K. F. Eather, Seattle Sec., D. E. Soltera, Seattle

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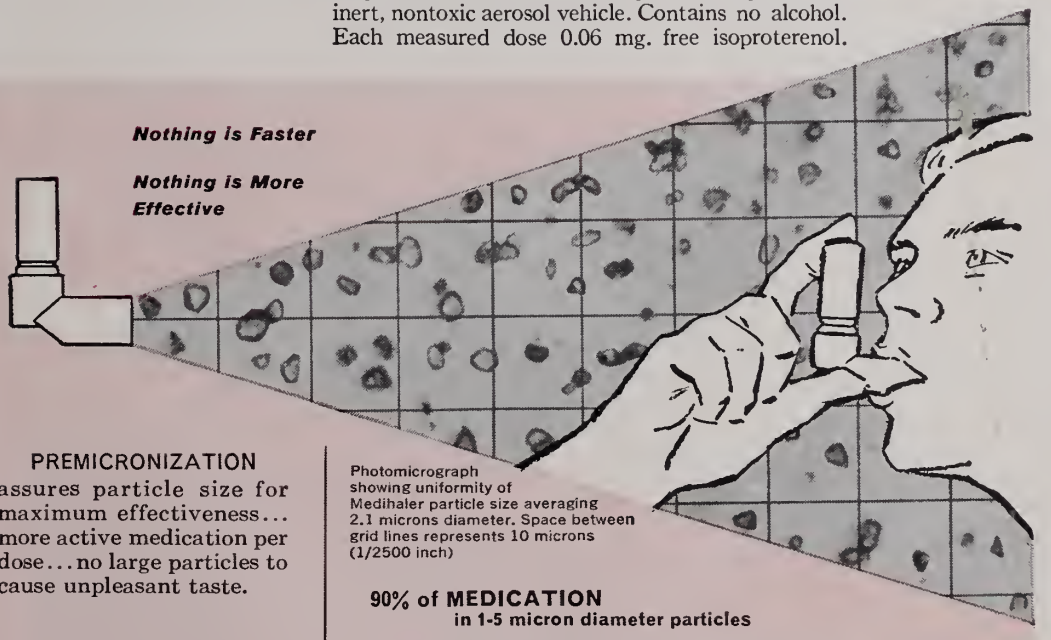
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1. Arner, O., and Others: Nord. med. *58*:1346 (Sept. 12) 1957.
2. Wilner, S.: Canad. M. A. J. *77*:199 (Aug. 1) 1957.
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6. Stough, A. R.: Personal communication, Aug. 10, 1957.

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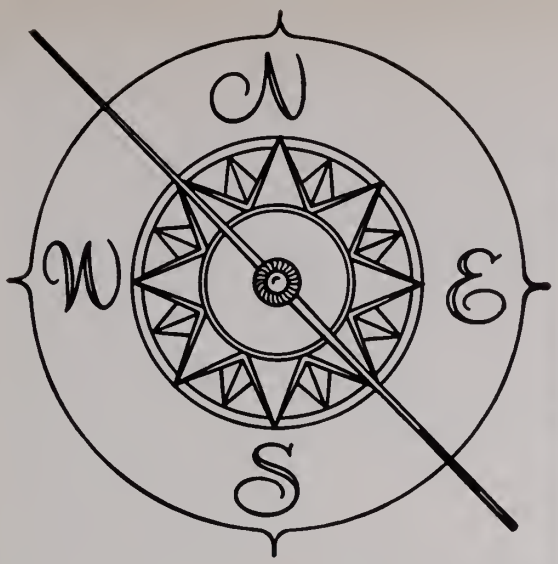
Reference: *Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A.* **166**:*1019, March 1, 1958.*

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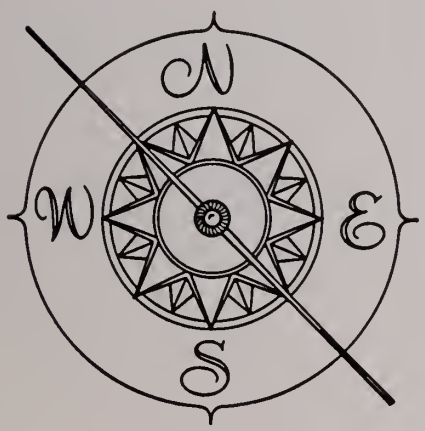
1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.

2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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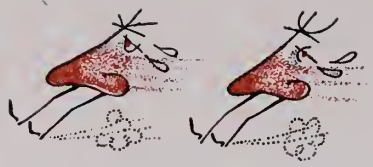
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running noses . . .



and other hay fever symptoms

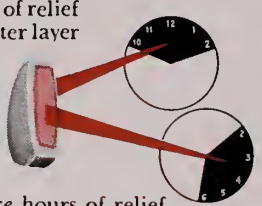
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1. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. *6*:580 (April) 1955.
2. Codling, J. W., and Lowden, R. J.: Northwest Med. *57*:331 (March) 1958.



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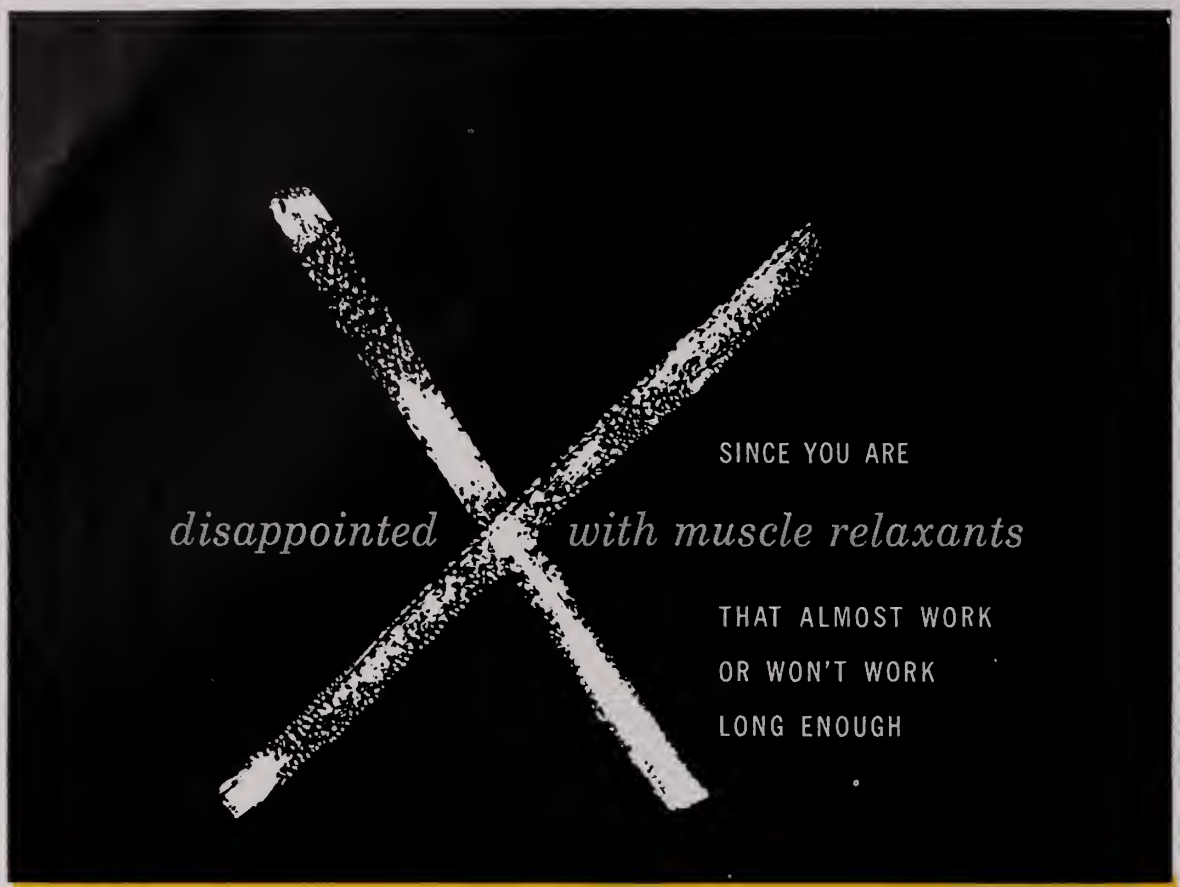
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Source—Meyer, O. O.: Northwest Med. *53*:1006, 1954.

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*Bauer, H. G.; Seegers, W.; Krawzoff, M., and McGavack, T. H.: New York J. Med. *58*:520 (Feb. 15) 1958.

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Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

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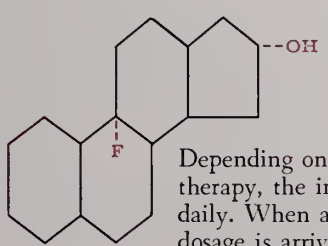
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11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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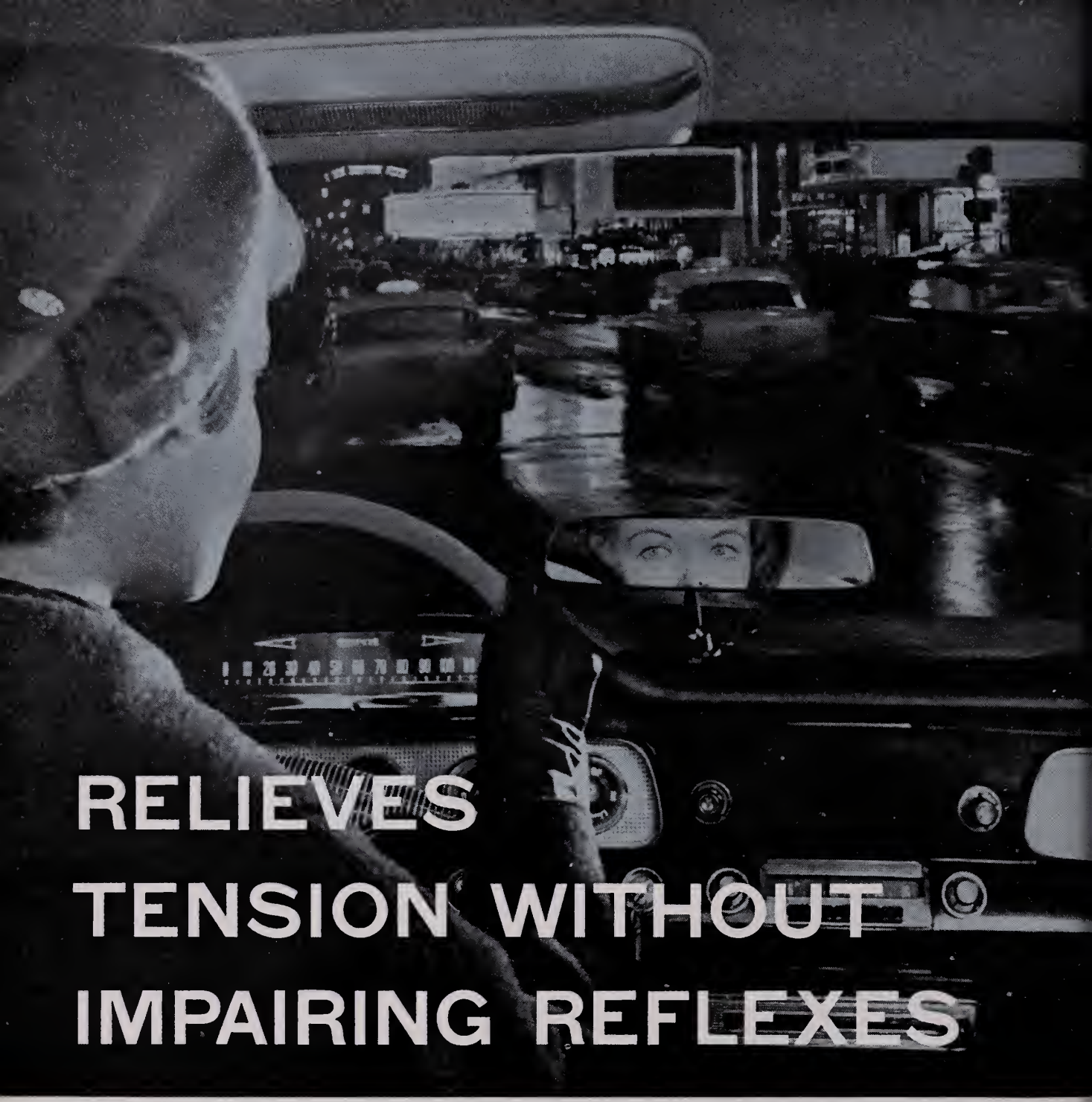


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*Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

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NORTHWEST MEDICINE

VOLUME 57
NUMBER 7
JULY, 1958

EDITORIAL

Diverticulitis

Diverticulitis is becoming increasingly important for two reasons. Since it is a disease of the latter half of life, it is being seen more frequently because of the increased proportion of older persons in the population. The second reason is the opportunity to employ surgical treatment more frequently due to lowered surgical mortality. The latter factor calls for better understanding of the disease and more prompt decision as to the method of handling.

Comprehensive discussion of the problem of diverticulitis was presented by Claude Welch at the convention of the American College of Gastroenterology last October.[1] He reported that diverticulosis was found to increase steadily with age in a series of 2,000 barium enemas performed at the Massachussetts General Hospital. Age range was from 35 to 90. Two-thirds of those in the advanced age group had diverticulosis and nearly half had some evidence of diverticulitis.

Welch believed that 70 per cent of the cases of diverticulitis may be treated medically and that those requiring surgery either develop more severe symptoms rapidly or suffer continuing disability. The decision can be made only by following the individual patient and not on the basis of any special signs or symptoms. Occasionally symptoms are severe enough to demand surgery immediately.

Constipation and diarrhea are less important sign posts than abdominal pain and abdominal distention. Increasing importance must be attached to palpable mass, nausea or vomiting, rectal bleeding, dysuria or frequency, pneumaturia and fecal fistula. Rectal bleeding is seen more frequently than has generally been recognized. Welch reports that 27 per cent of the cases show gross bleeding. Initial attack, in most cases, is characterized by pain in the lower left quadrant, localized tenderness, slight fever and either constipation or diarrhea.

Pattern of recurrence is extremely variable. Welch has no fixed rules for selection of patients to be treated surgically but lists a series of conditions pointing in that direction. One or more of the serious symptoms, such as bleeding or dysuria, may lead to the decision. X-ray evidence of deformity which may lead later to obstruction, or persistent recurrences under good medical management may indicate surgery. Surprisingly enough, Welch operates on the younger patients more frequently than those older for two reasons. When symptoms develop before the age of 50, the patients tend to have more serious complications. Also, they have longer to live with the disease. He admits to more enthusiasm for surgery if the patient is not obese and if diverticuli are confined to a relatively short segment of the colon.

While diverticulosis and cancer are often associated, it is not common to find cancer in the patient with active diverticulitis. However, accurate diagnosis is important. The two are readily confused. No serious error is apt to ensue if diverticulitis is mistaken for cancer since surgery is apt to be undertaken promptly. If the diagnostic error is in the other direction, with cancer mistaken for diverticulitis, there may be temptation to delay. Diagnosis requires adequate radiologic examination and careful sigmoidosco-

1. Welch, Claude E., Diverticulitis of colon, Am. J. Gastroenterol. 29:374-384, (April) 1958.

py. Patients with repeated episodes of rectal bleeding or those with persistent obstruction which does not yield promptly to conservative measures should be suspected of having cancer rather than diverticulitis.

Welch believes that 70 per cent of cases of diverticulitis will improve on medical therapy. Persistent symptoms will indicate surgery in 10 per cent and 20 per cent will have complications requiring surgical treatment. These include perforation, fistula formation, obstruction and severe hemorrhage.

Choice of surgical procedure depends on condition of the patient, severity of deformity, if any, and extent of complications. Any procedure should be considered as a step toward ultimate resection of the involved segment. Exteriorization is not often applicable because the disease is often low or the colon has been so shortened and adherent that it cannot be mobilized. Primary resection and anastamosis may be done if operating conditions are optimum and the disease is in a relatively early stage. Welch feels that this recommendation may seem somewhat radical but that it may prove to be safe. Somewhat more conservative, but proven to be safe, is closure of the perforation and transverse colostomy. Drainage may be necessary if the abscess is large or contains foul pus or necrotic tissue.

Welch resects the involved colon and does primary anastomosis in about half his cases. Cecostomy may be done, either previously or at the time of operation in some cases. The anastomosis is considerably more difficult than that done after removal of a carcinoma because of the unexplained fact that the proximal colon is of small caliber, with edema and thickening of the wall. Stricture may follow unless prevented by extra care in making the anastomosis.

Subtotal resection of the colon has been advocated by some and may be necessary if the disease is widespread. However, it is confined to the sigmoid in 90 per cent of the cases although there may be scattered diverticuli in other parts. Resection of 20 to 25 cm. usually suffices.

Welch reports a significant trend toward more radical treatment. Closure of perforation without resection and simple colostomy, both employed extensively prior to 1942, have now fallen into disrepute. Mortality was 17 per cent. Between 1942 and 1957, 218 sigmoid resections were performed with hospital mortality of 2.7 per cent. End results have been excellent.•

Spokane Surgical Society

Publication in this issue of most of the material presented at meeting of the Spokane Surgical Society, last April, represents something of a departure from the customary pattern. Emphasis on a single topic is usually avoided. In this case, however, it seemed worthwhile to present all of the submitted papers in a single issue. The subject of cancer is broad enough to encompass discussions of interest to practitioners in any field. Six of the eleven papers presented by members are published in this issue together with two of the three papers given by Dr. Pack.

Washington Chapter of the American Cancer Society participated in the meeting and provided the transcriptions of the material given by Dr. Pack. Due to the differences between interesting verbal discussion and formally prepared manuscripts, it was necessary to rewrite the two papers published in this issue. The third was composed only of comment on lantern slides shown and did not lend itself to publication. In spite of the fact that the first rewritten version was sent to Dr. Pack at a time when his schedule was already overcrowded, he very carefully revised the two papers and returned the manuscripts now published.•

Physical Therapists Meet

Third phase of medical care was given emphasis in this region last month when the American Physical Therapy Association held its thirty-fifth annual session in Seattle. It was the first Northwest visit of this long established and active organization. Emphasis was on better understanding of the patient and better methods of carrying out the therapy prescription of the physician.

As pointed out by Howard Rusk, medical care is not complete with diagnosis and treatment but must be carried through the third phase, rehabilitation, until the patient has regained maximum usefulness to himself and society. It is for this reason and because of growing appreciation of what physical therapy can accomplish, that activities of the American Physical Therapy Association should be of interest to physicians.

The six day conference was attended by more than 800 physical therapists from all parts of the nation. The list of speakers included many physicians. Subjects ranged from reports of recent fundamental research to communication problems in teaching, to practical demonstrations of new therapeutic techniques.

A few of the subjects presented may give an idea of the scope of the program: Neurophysiology a Physical Therapist Should Know, Ernst Fischer, Ph.D., Medical College of Virginia; Clinical Recognition of Factors Which Limit Purposeful Movement, Lawrence Knopp, M.D., University of Washington; Testing and Measurement—Purposes and Methods, William Duncan, M.D., Sherburne Heath, M.D., Seattle, and others; Understanding of the Patient's Emotional Reactions to Disability and Treatment, Herbert Ripley, M.D., University of Washington; Basic Principle of the Therapeutic Application of Ultrasound, Justus Lehmann, M.D., University of Washington; Variations of Muscle Force Through the Range of Joint Motion, Marian Williams, Ph.D., Stanford University; An Experimental Study in the Neonatal Guinea Pig on a Possible Cause of Cerebral Palsy, Miss Eleanor Flanagan and R. Frederick Becker, Ph.D., Duke University Medical Center; Myofascial Pain, John Bonica, M.D., Tacoma; Responses to Physical Therapy Under a Hallucinogen by a group from V.A. Center, Los Angeles; Electrical Stimulation for "Spot Reducing"—Study of a Single Case, Mr. Robert Babbs, Jr. and Miss Elizabeth Wood, Chicago. There were many panel discussions and demonstrations on problems commonly encountered by technicians.

Actually, a meeting of physical therapists, such as the one held in Seattle last month, is more than just an event of interest to physicians. It is a challenge. Physical therapists are not only willing but anxious to render their service completely in accord with the directions of physicians. Most physicians in practice see some patients who could benefit from physical therapy. Need for knowledge of how best to use it is the challenge.•

Government Feeds on Inflation

Observe the history of all hyperinflations. In every instance they were preceded by "creeping" inflations.

The question is: Are we headed for hyperinflation? The answer comes clear if we recognize the nature and cause of inflation. Inflation is a form of taxation, resorted to by government as a means of obtaining revenue. When the activities of government become so expensive that it is no longer politically expedient to obtain the needed revenue by direct taxation, inflation will be invoked. The whole historical record confirms this conclusion. *Inflation inheres in overextended government, and there is no remedy whatever except to shrink the activities of—and thus the expenses of—government.*

To answer the question—Are we headed for hyperinflation?—only requires that we answer the question—Are we headed toward the extension or the shrinking of governmental activities? The answer is clear: We are, as of now, politically committed to the further extension of governmental activities. All proposals from Washington confirm this. Unless the political design is reversed, we are hopelessly bound for hyperinflation.

By Leonard E. Read in The Freeman, June 1958, Volume 8, pp. 4-5.



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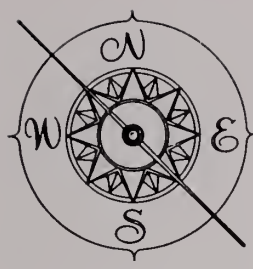
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ORIGINAL ARTICLES

Conservatism in Obstetrics

JOHN STALLWORTHY, F.R.C.S., F.A.C.S. (HON.)
OXFORD, ENGLAND

The ancient and beautiful city of Oxford, from which you have done me the honour to invite me to deliver this memorial lecture, is famed for more than its University. Its exports carry its name to the four corners of the earth and include bibles, dictionaries and automobiles. These provide a guide to the next world, advice on this and, for the unfortunate few, a means of rapid transport from one to the other. It was natural therefore that I should consult the Oxford dictionary in an endeavor to get my definition correct and to understand exactly what conservatism in obstetrics meant. For once it was not very helpful. While the port was circulating after dinner round the beautiful mahogany table resplendent with its ancient silver in the candle-lit senior common room of Queens College, I asked a Classics Don for his definition and without hesitation he replied—"I will give it you in four words—resistance to new ideas."

Contrast

Conservatism in obstetrics is instinctively contrasted with what we imagine to be the radical approach. One man having assessed the problem of a high head at term in a primigravida says "nature can deal with this," while a colleague reviewing the same problem decides that the knife and not nature must prevail. The one is considered conservative, the other radical, but to accept this classification without knowing what happened to the patient would be to over simplify the position. Generally speaking, one cannot with justice label a man radical or conservative by his handling of isolated selected cases for which we had no clinical responsibility. It is easy to be wise and infallible when the final decision is not ours. The general pattern of a man's practice is found only in a comprehensive survey of his work. If we all spent longer in critical assessment of results, our standards of achievement would rise. Therein are annual clinical reports justified, be they of individual practice or departmental work. They promote humility.

British medicine is renowned for its conservative tendency, its resistance to new ideas, which on occasions has made it the laughing stock of the public at home and the profession abroad. The conservative attitude is deeply rooted and has been a stabilizing factor, but this is not its raison d'etre. If the profession with closed minds had continued to be ultra conservative, there could have been no Lister, no Simpson, and in modern times no Fleming nor Florey, or if such men existed they would have died unrecognised. On the other hand if the influence of British conservatism, with its insistence that two essentials to good obstetrics were patience and cleanliness, had prevailed in Vienna when Boer was replaced early in the 19th century by the

Sommer Memorial Lecture presented at the 43rd Annual Meeting of the University of Oregon Medical School Alumni Association, Portland, Oregon, April 17, 1958.

more radical Semmelweiss with his new ideas on the scientific approach to medicine, many tragic pages of the history of puerperal sepsis need never have been written.

Patients Are Individuals

Let us consider the basic problem philosophically. For every patient there must be one form of treatment superior to all others. I say "for every patient" and not "for every disease or emergency," because in all branches of medicine there is a tendency to forget the importance of the individual in our pre-occupation with clinical techniques. An illustration may clarify this. Mrs. Brown and Mrs. Jones are the same age and in their late thirties. They are of the same build and in excellent general health. They are due to have their first babies on the same day and at term they have infants of estimated equal size presenting by the vertex with the occiput anterior, the head at the brim, but no disproportion. They appear to be identical clinical problems—but they are not. One is radiantly happy and confident. She is relaxed in body and in mind and when labour commences, its smooth course can be predicted with assurance. The other is tense and fearful. The months of ante-natal preparation have not succeeded in overcoming her fears. An only child, she has never forgotten that her mother died when she was born, and deep in her heart she has always associated childbirth with death rather than with life. The doctor who encourages the one elderly primigravida to have a normal delivery is no more conservative than he is radical when he performs a caesarean section on the second to avoid a prolonged unsatisfying labour with its attendant dangers. Let us imagine that an obstetrician, proud of his conservative practice, decided to enforce a vaginal delivery on the second patient and in the process lost the infant. He has been resistant to the idea of interference in spite of a combination of adverse factors and to that extent has by the Don's definition been conservative. This interpretation is untenable. Among its other meanings, to conserve means to preserve, and in obstetrics this must mean to preserve life and health for both mother and babe. All obstetric techniques should have this as their aim and it is important to note today that conservative obstetrics is different in outlook from what it was even twenty years ago. The radical approach of yesterday can become the conservative attitude of tomorrow.

Jellett, a former Master of Rotunda Hospital, Dublin, and a great exponent of conservative obstetrics, in his book on Maternal Mortality referred to abuse of caesarean section—an abuse that still exists in many places.[1] He classified the conditions most commonly responsible as minor degrees of contracted pelvis, eclampsia, and placenta praevia—a triad many would still indict. Referring to placenta praevia he contrasted results reported from America by Holmes with an estimated caesarean maternal mortality of 20 per cent with the 2 to 5 per cent reported by Essen-Moller, Pinard, Williams and others, following vaginal delivery using a de Ribes bag or Braxton Hicks manoeuvre. He considered vaginal delivery a manifestation of the conservative approach and made this significant comment:—"The foetal mortality in these cases was necessarily very high. It is possible that some infants might have been saved by caesarean section, but the important point is that from the mother's point of view operation was unnecessary." Remember these remarks were made by an acknowledged leader of conservative obstetrics. Improved techniques have altered all this and today the choice between mother and child is unnecessary.

It was considered conservative (with justification) twenty years ago to avoid operation, even at the expense of almost certain foetal death whereas today, by the definition we have accepted, treatment could not be regarded as conservative if it subjected either mother or child to increased hazards. The interpretation of this guiding principle differs widely in different clinics. In 1950 I expressed the view that placenta praevia could be treated with no maternal mortality and an uncorrected foetal loss not greater than 10 per cent.[2] Maternal mortality in selected teaching units at that time was 3 per cent with a foetal loss of 30 per cent and more. That pipe dream, as some called it, proved a correct forecast which results published from many centers have confirmed. Careful selection of the right case for the right treatment rather than the adoption of a routine procedure either radical or conservative is the key to success.

Two general principles should be accepted in treating placenta praevia. One is the conservative policy to avoid prematurity first expounded by Johnson[3] and Macafee.[4] The other is that caesarean section must play a more important role in the future than it has in many places in

the past. Lawson Tait could not have foreseen, when he performed his first caesarean hysterectomy for placenta praevia in 1898, that conservative section alone would become an accepted technique within fifty years (table 1).

Table 1. Conservatism.

MATERNAL MORTALITY

Caesarean Section

Author	Number	Mortality
Merriman (1835)	52	75%
Kerr & Holland (1911-20)	1218	1.56%
Marshall & Cox (1943-47)	3126	0.19%
Ministry of Health* (1952-54)	59000	0.4%

* Report No. 98. Her Majesty's Stationery Office 1957.

The Major Issue

This leads me to a major issue between conservative and radical treatment. The following comments have been formulated after a wide experience in many clinics in different countries. There is a tendency for a man's attitude to medicine to be coloured by his own capabilities and these are largely governed by the extent of his training, particularly in matters surgical. We honour those excellent pioneer and self-taught surgeons who laid the firm foundations of modern techniques, but if a man is to achieve the highest of which he is capable in surgery or obstetrics he needs to serve an apprenticeship. This does not mean visiting a theatre or labour ward once a month to see spectacular techniques. It demands close liaison with experienced chiefs willing to teach. The apprentice achieves the confidence necessary for satisfactory performance of the more difficult and intricate procedures by assisting and later by being assisted. The poorly trained man tends to be radical in obstetrics but conservative in surgery. Without spending many hours by the bedside of a labouring woman to see what nature is capable of, man is inclined to underrate her powers. Moreover if he has not seen what a skilled hand can accomplish he is inclined to underrate his own potential ability. The result is that he knows only one answer for too many of his obstetric problems—caesarean section when patience and experience could have triumphed.

So much is written of the safety of caesarean section that it is well to consider whether this description is justified. Many obstetricians and many units can produce a fine record of large series of sections without a maternal death. Generally speaking these are not the units where the section rate is highest although the number performed may be considerable.

Parallel Progress

The pattern of progress in our two countries has been virtually parallel through the years. In England and Wales the maternal mortality was 0.6 per 1,000 for the years 1952-4, but the estimated rate for caesarean section was seven times as great (4 per 1,000). Of 175 deaths following caesarean section, 70 per cent were due to operative causes (table 2). This equals the overall mortality for 1908-17—a rather alarming comparison. The lives of many women are undoubtedly saved by section and there are so many variable factors to equate that comparisons between caesarean and general mortality rates can be unfair. The claim that a high proportion of postoperative deaths are due to associated diseases, such as nephritis or eclampsia, and not to the operation, is not supported by the evidence. Even more arresting is the fact that when section was performed before labour, twice the number died as with section during labour. Haemorrhage, shock and collapse were responsible for 73 per cent of the pre-labour deaths whereas sepsis and ileus accounted for 69 per cent of those dying when operated on during

Table 2. Mortality Results Published in Great Britain from Three-Year Survey of Maternal Deaths.

MATERNAL MORTALITY

Caesarean Section

Immediate Cause of Death	Not in Labour	In Labour
Shock and Collapse Haemorrhage	48	13
Embolus Sepsis Ileus	30	26
Total	78	39

labour. These figures give food for thought and while there are clinics with a massive material and low mortality there are others in which both the section and death rates are high. The lesson is that the operation is not as safe as is sometimes claimed and the more it is abused by those unaware of its dangers the greater will be the mortality.

Four points are worthy of consideration in considering section in relation to conservatism:

1. *The extra-peritoneal operation.* In the British Commonwealth this operation is seldom performed. It is interesting but unnecessary. The criticism that this view is a resistance to new ideas and therefore a sign of conservatism will not be disputed, but when an old friend proves faithful he should not be deserted. The lower segment technique using the muscle splitting transverse uterine incision has proven its value in many thousands of infected cases even before the days of chemotherapy and antibiotics. Even today we seldom use these agents with the lower segment operation and in a consecutive series of nearly 1,200 sections in the Oxford Department, there has been no death from infection nor has a caesarean hysterectomy been performed for sepsis. This radical procedure was performed on rabbits by Blundell of Guys Hospital, London, as early as 1828. He suggested its possible use in the human, but it was Porro of Pavia in 1876 who proved its lifesaving potential. The need, however, no longer exists and while it might be regarded conservative in tradition it is unduly radical in practice to sacrifice a uterus which can be saved by modern techniques.

2. *Repeat caesarean section.* The conservative attitude to which we subscribe at Oxford rejects the view that "once a section always a section," nor does it agree with sterilisation after an arbitrary number of operations. This practice demands certain safeguards in its clinical application, but is independent of the type of operation originally performed. During the war a great deal of emergency obstetrics on patients evacuated from London was handled at Oxford and many patients had previously been delivered by section, both classical and lower segment. Vaginal delivery was accomplished safely in 70 per cent of all previously delivered by section and neither a patient nor a uterus was lost because of rupture.

It would be foolish to deny the risk of rupture, but with adequate precautions it need not be the excuse for unnecessary surgery. The time to start treating serious haemorrhage is before it occurs. For this reason the blood picture, always important in obstetrics, is doubly so when a patient has previously been delivered by section. Anaemia is an unnecessary and dangerous hazard. After classical section the risk of subsequent rupture is increased, as is the threat to life if it occurs—two excellent reasons why the operation should become a rarity.

Early admission is advisable after previous classical section, at least a fortnight before term and earlier if there is reason to suspect an anterior placenta or if the scar becomes tender. If labour cannot be conducted in an institution with surgical and anaesthetic facilities for immediate section and with a competent medical staff in attendance, conservative vaginal delivery is not justified. Either the patient should be transferred to another institution where adequate supervision is possible, or the operation should be repeated. Caesarean section can be a wonderful friend but a ruthless enemy. The dangers of the transverse lower segment technique are much less, and in the absence of wound tenderness, early admission is not essential, but the same precautions are necessary during labour. If the obstetrician would always pause to consider the ultimate effect on a woman's life when he advises her first caesarean, the operation rate would fall.

There is one further important aspect of the repeat operation and this concerns foetal salvage. Many patients and doctors have a misplaced belief that section guarantees the safe delivery of the child. If there are any conditions under which this should apply they would be in relation to the elective repeat operation. Unless one is obsessed by the danger of early rupture there is no urgent hurry for the operation and it would be reasonable to assume that it would be arranged to give the child the maximum chance of survival. A babe alive when a caesarean is commenced should be alive when it is completed, and after 38 weeks gestation its chance of survival should be as good as at term. Repeat sections do not always achieve this with you, or with us in Britain, as recorded by Bubalo.[5] A foetal mortality of 40 per 1,000 occurred with repeat operations as against 29 per 1,000 in an overall series of 10,825 deliveries. When repeat section is necessary the timing of operation is important. An analysis of 1,363 caesarean sections reported from eight British

teaching hospitals revealed that 171 infants (12.5 per cent) were premature and of these 37 (21.6 per cent) died. Even when the operation was elective with the babe not apparently at risk 33 produced premature infants, 5 of which (15 per cent) died.

Caesarean Myomectomy

Finally, in relation to caesarean section, comment is indicated on the controversial subject of Caesarean myomectomy. It has for long been taught that this is a highly dangerous operation which should not be performed. The traditional reason given is the alleged risk of haemorrhage. This is a physiologic error provided the depth of anaesthesia is not excessive. At no time does a uterus contract and retract more efficiently than when empty at term. This fact is apparent after both normal delivery and section. It is true that to perform myomectomy during pregnancy is to play with fire and endanger both mother and babe. With an empty uterus the problem is different and it is not usually justified to perform caesarean section and re-open the abdomen later for myomectomy. Rules which Bonney postulated in reference to myomectomy on the non-pregnant uterus are even more important when removing fibroids after caesarean section. It is necessary to avoid tissue necrosis, secure haemostatis, and obliterate dead spaces. Interrupted figure of eight sutures are ideal for this. Incisions should be on the anterior uterine wall when possible and be covered by peritoneum from the utero-vesical fold. With these precautions the operation can be commended with confidence for one or more large fibroids complicating delivery.

If the caesarean section rate is regarded as an index of conservative or radical obstetrics, it will often be found that where the rate is high the incidence of forceps and surgical induction is low. The Oxford Department in the last six years has delivered 19,000 mothers with a section rate varying from 2.4 per cent to 4.2 per cent, equivalent to 1.4 per cent to 2.5 per cent for all deliveries in the area, as only 60 per cent of mothers have hospital confinement. This is not through choice, but because of inadequate hospital facilities. A department responsible for the maternity services of a wide area admits all the abnormal and problem patients and only the normal have home delivery. Even those major complications occurring unexpectedly at home are transferred, usually by means of the obstetric flying squad service, to the main department and then are featured in its annual report. In 18,918 deliveries conducted during the last six years the forceps rate has varied annually from 10.8 per cent to 15.4 per cent. This is a high rate for England, but it must be remembered that the incidence of abnormal and emergency admissions is high. Figure 1 summarises a comparison

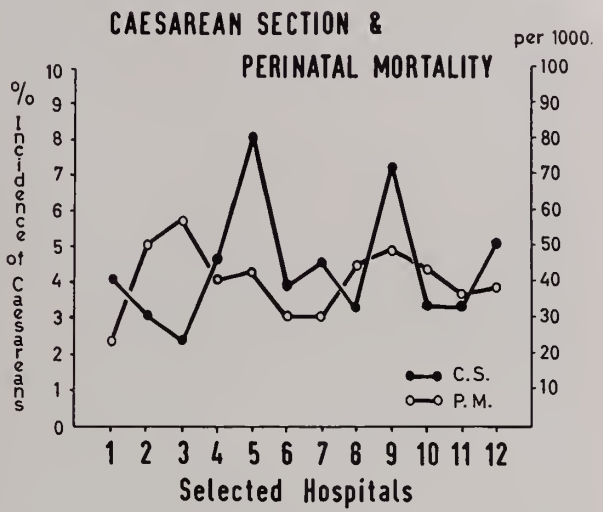


Fig. 1. Comparison of caesarean rate and perinatal mortality in 12 selected teaching hospitals in Great Britain and America.

between the caesarean rates and foetal mortality in twelve teaching hospitals in Britain, the Commonwealth, Eire, and America, selected at random. A high section rate is not necessarily correlated with a low perinatal mortality and in only three hospitals were both rates low.

There is a tendency today to decry surgical induction of labour, and no less an authority than my good friend Mr. Gibberd of Guy's Hospital, London, in a challenging article has questioned its value in post-maturity.[6] Carefully supervised, with or without an oxytocic drip, it can be a valuable weapon in obstetrics. It can reduce the need for section in toxaemia, post-maturity, and in selected cases of previous section. For example, at the Churchill Hospital, Oxford, 1,025 toxaemic mothers were delivered with no deaths in the years 1953 to 1957. Surgical induction was performed in 44.5 per cent and 94.3 per cent of these delivered vaginally with an uncorrected perinatal mortality of 25 per 1,000. Rupture of forewaters and hind waters was performed in approximately equal proportion according to the relation of the presenting part to the pelvic inlet. The lower segment op-



eration has proved safe over many years when induction fails or the patient's condition deteriorates.

X-ray

To speak of conservatism in obstetrics without reference to x-ray pelvimetry would be comparable to describing steak and onions without mentioning the onions. Anything allegedly scientific commands great respect but also demands critical appraisal. Some radiologic techniques give precise pelvic measurements, but their widespread abuse has prevented countless women from having their babies not only naturally but easily. It has been my privilege to work in association with such international authorities on pelvimetry as Nicholson, Chassar Moir, Allen and others, while at the same time with healthy scepticism conducting an extended study of trial labour in association with pelvimetric forecasts. This work has been described by Hawksworth and Allen, the latter of whom found that 30 per cent of the primigravidae referred to him for x-ray studies in New Zealand were delivered by section, usually elective.[7] Until he worked with critical control, Allen described a pelvis with a conjugate under 12 cm. as contracted. His reports showed that the clinician had too often been biased by an unfavourable forecast and resorted to elective operation. The conflict between the conservative and the radical in obstetrics has seldom been better illustrated than in the history of radiologic pelvimetry.

Progress of Conservatism

Two further examples of the triumph of conservatism in obstetrics are found in the recent history of cardiac disease in relation to pregnancy, and erythroblastosis. No longer is it considered necessary to advise therapeutic abortion or tubal ligation for these conditions. When indicated, stenosed valves are divided and even coarctation successfully dealt with surgically during pregnancy. Nor do these procedures make delivery by section necessary. In 132 consecutive cardiac patients delivered in the Oxford Department from 1947 to 1955 only 2 sections were performed. There were no maternal deaths and 127 babies survived. Similarly, 141 mothers with rhesus antibodies in the years 1954 to 1957 produced 120 healthy children and 1 surviving with

Figs. 2 and 3. Deformed chest of hypertensive cripple. Fig. 4. Compensated pelvis of same cripple who was delivered vaginally.

kernicterus. Seventy-two of the infants required transfusion and 13 of these repeated exchanges. These figures demonstrate that when assessing the prognosis in early pregnancy one can have reasonable optimism when facilities for adequate treatment are available.

Because of its association with a large orthopaedic hospital, the Oxford Department cares for many women with gross skeletal deformity due to poliomyelitis, tuberculosis and other diseases. The way nature can be kind to the pelvis of those terribly crippled is most impressive. Many of these women have a deep desire to produce their babies naturally and when life has denied them so much it is the more important to offer encouragement when this can be done safely. The twisted spine and compensated pelvis of one such deformed cripple delivered shortly before I left England are illustrated in figures 2, 3 and 4. This patient like so many others with skeletal tragedies was thrilled by her ability to achieve in childbirth what her normal sisters had done.

Conclusions

The subject of conservatism in obstetrics is wide, but the selected examples given, and the lessons learned from them, must suffice. In the last fifty years techniques have changed, often dramatically, to the great advantage of mother and babe. Neither the conservative nor the radical attitude has consistently yielded rich dividends, but each in its time and place has contributed to progress. Contrary to what is often said and written, obstetrics can still be an art for those who wish to practice it as such. General principles can be a guide, but in art there is infinite variety for self expression linked with a constant striving for perfection. When this desire is nurtured we need not fear the future. •

85 Banbury Road.

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Tumors of the Parotid Gland

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Tumors of the parotid gland have been recognized and treated surgically for two centuries.[1] However, there still persists a lack of understanding of the clinical course of the different types of parotid tumors. Although recurrence rates of benign mixed tumors have been reported as high as 40 to 45 per cent,[2] enucleation of the tumor is, unfortunately, common practice. Malignant tumors of the parotid, such as undifferentiated carcinoma, have a frightful mortality rate of the order of 75 per cent, yet totally inadequate local excisions continue to be done.

Inadequate surgery of parotid tumors has been the result of lack of knowledge of the clinical course of each type of parotid tumor, and fear of damage to the facial nerve. In some neoplasms of the parotid, sacrifice of the facial nerve is mandatory if cure is to be attained. In most parotid tumors, although the operation is difficult and tedious, it is possible to remove radically the parotid gland and preserve the facial nerve. Furthermore, when sacrifice of segments of the nerve or a major portion of the nerve is necessary, nerve graft is being utilized with promising results.[3,4]

Clinical diagnosis of tumors of the parotid necessitates the differentiation of non-parotid swellings in the region, such as sebaceous cysts, branchial cleft cysts, adenitis due to inflammation, metastases from lesions of the pharynx, and cellulitis. The most common error is diagnosis of a tumor in the tail of the parotid posterior to the angle of the jaw as lymphadenitis.

Clinical differentiation of types of tumor of the parotid is most difficult. Characteristics of benign and malignant neoplasms, without pain or nerve involvement, are often identical. Sex and age of the patient are of little aid. Cervical node metastases, involvement of the branches of the facial nerve, pain in the region of the tumor, fixation of the tumor and rapid growth are presumptive signs of malignancy. Sialograms may suggest that the tumor is either superficial or deep, but are of little practical value. Needle biopsy is used but involves the theoretic danger of implantation of tumor cells, is of value only when positive, and does not obviate the necessity of surgical exploration.

Surgical approach to any parotid tumor must be such as to expose the entire parotid area widely and to permit identification of the trunk of the facial nerve as it emerges from the stylomastoid foramen. Only this approach, which has been well described by Janes,[5] Byars,[6] Bailey,[7] and State,[8] permits adequate removal of benign tumors with preservation of the facial nerve or wide radical resection of parotid gland and nerve where indicated. It must be emphasized that the surgeon cannot be certain pre-operatively that the clinically benign tumor is not of a malignant type necessitating wide radical resection. Each patient must be warned pre-operatively that it may be necessary to sacrifice portions or all of the facial nerve if indicated by the diagnosis on frozen section or by gross involvement of the facial nerve.

In formulating the plan of approach to each parotid tumor, the surgeon and the pathologist should use a tumor classification which has a background correlating histopathologic findings with the clinical course. Foote and Frazell[9] in 1954, after intensive study of nearly 900 salivary gland tumors formulated a classification and correlated clinical course with tumor histology (table 1). Utilizing this classification, and correlating other reported series, one is able to formulate a rational plan of surgical attack upon each type of tumor and can estimate prognosis.

Mixed Tumors

Representing two-thirds of parotid tumors, the mixed tumor is a slow growing painless tumor more common in women than men. The capsule of the tumor is thin and excresences of tumor tissue jut into the surrounding parotid so

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Table 1. Classification & Distribution of Parotid Tumors.*

Classification		Distribution %
Mixed Tumors		65
Benign	59%	
Malignant	6%	
Mucoepidermoid (Carcinoma)		12
Squamous Carcinoma		3
Adenocarcinoma		9
Papillary Cystadenoma Lymphomatosa		7
Oxyphilic Adenoma	(1)	
Sebaceous Cell Adenoma	(1)	
Benign Lymphoepithelial	(2)	
Unclassified Tumors		4
Benign	0.05%	
Malignant	4.00%	
TOTAL—766		100

*Adopted from Foote & Frazell.

that enucleation is likely to leave behind islands of mixed tumor, explaining the usual multicentric feature of recurrent mixed tumors. Histologic picture is that of epithelial and connective-tissue-like growth in varying proportions. Pseudo-cartilaginous structures are common.

Mixed tumor is most commonly benign in proportion of about 10 benign mixed tumors to 1 malignant mixed tumor. Marshall has observed that average duration of benign mixed tumors is 5.5 years whereas average duration of malignant mixed tumors is 9.6 years, suggesting transition of benign to malignant. Slaughter has presented 12 malignant mixed tumors which he believes may have been, originally, benign mixed tumors.[10] Histologically, the malignant mixed tumors have areas of benign mixed tumor and areas of dysplasia suggestive of adenocarcinoma or squamous cell carcinoma. Invasion or lack of encapsulation is noted.

Great tendency of benign mixed tumors to recur is emphasized by the fact that in almost all series reported one-third of the patients have had prior operations elsewhere. Kirklin[11] and Marshall,[12] report recurrence rates of 10 to 11 per cent in 5 years and 14.6 to 17 per cent in 10 years. In secondary operations on recurrent benign mixed tumors the recurrence rate is double that seen after primary operation, being reported as 22 per cent in 5 years and 35 per cent in 10 years.

Injury to the facial nerve in part or in total occurs in 6 to 10 per cent of primary operations for mixed tumors whereas in secondary operations for recurrent mixed tumors the nerve damage rate is much higher.[1,12] In those patients for whom the nerve is identified and more radical resections effected, not only has the incidence of recurrences declined but the incidence of permanent nerve damage has been reduced.[1]

Surgical treatment of benign mixed tumors and malignant mixed tumors necessitates identification of the trunk and branches of the facial nerve, wide resection of the parotid gland and preservation of the nerve unless it is infiltrated. Prognosis in the benign mixed tumor is excellent, being in the vicinity of 98 per cent for 5 year survival.[11]

Cervical nodes are involved in 15 per cent of malignant mixed tumors at the time of initial operation and in 40 per cent of recurrent malignant mixed tumors.[9] Radical resection of the parotid for malignant tumor, therefore, should be accompanied by radical neck dissection and followed by radiation therapy. With lesser procedures, the local recurrence rate is 40 to 50 per cent.[9-12] Five year survival rate of patients with malignant mixed tumors is approximately 75 per cent.[13]

Mucoepidermoid Tumors

Comprising 3 to 12 per cent of parotid tumors,[9,14] the mucoepidermoid tumor contains both mucin secreting and epidermoid cells. Slow growing and seldom over 4 to 5 cm. in diameter, the tumor is more common in women. Clinically, it is mistaken for benign mixed tumor or carcinoma and its clinical course lies between the two.

The tumor is circumscribed but often there is little or no capsule. On cut surface its mucin secreting nature is apparent.

Foote and Frazell have described two major variants, the low grade mucoepidermoid tumor and the high grade mucoepidermoid tumor. Clinical course and prognosis of the two differ as do the histologic findings.

The low grade mucoepidermoid tumor is painless, with no nerve involvement. Histologically, the mucus and the epidermoid cells predominate and there are relatively few of the small intermediate cells. Microcysts and foreign body reactions are common. Local recurrence rate is 15 per cent. Of 28 patients followed 5 years, 3 died of the disease (90 per cent 5 year survival rate).[9]

The high grade mucoepidermoid tumor presents the clinical characteristics of carcinoma; pain, vigorous growth, nerve involvement. Microscopically, epidermoid and hyperchromatic intermediate cells dominate and lymphatic permeation is common. Prognosis is not good, for regional node metastases occur in two-thirds and distal metastases in one-third. Five year survival is in the vicinity of 25 per cent.

Treatment of the low grade mucoepidermoid

tumor is wide or total resection of the parotid with preservation of the uninvolved nerve. Diagnosis of high grade mucoepidermoid tumor indicates total resection of the parotid with sacrifice of the facial nerve, radical neck dissection and postoperative radiation therapy.

Squamous Carcinoma

The highly malignant squamous cell carcinoma is reported as composing 1.8 to 6.0 per cent of parotid tumors.[11,13] The tumor is hard, often fixed and painful. It grows rapidly. Involvement of the facial nerve is common. Cervical nodes are often involved at the time of initial examination. Highest incidence is in the sixth and seventh decades.

Grossly the tumor is gray. It is unencapsulated and it infiltrates contiguous structures. Histologic characteristics are those of other squamous cell carcinomas.

Prognosis is grave. Buxton reports survival of 2 of 11 patients;[1] Foote and Frazell 4 of 16;[9] and Ariel 3 of 6,[13] a combined survival rate of 22.5 per cent. Treatment is radical resection of the parotid, involved contiguous structures, the facial nerve, and radical neck dissection in continuity. Postoperative radiation therapy may be of value.

Adenocarcinoma

Roughly 10 per cent of tumors of the parotid are adenocarcinomata. In the adenocarcinoma group are several variants with distinctive histologic characteristics which can be correlated with distinctive clinical courses. Unfortunately there is no commonly accepted terminology for these variants so that it is difficult to summarize published reports.

Adenocystic carcinoma, the designation proferred by Foote and Frazell, is apparently synonymous with the term cylindroma preferred by others. Clinically, the lesion may suggest a benign tumor of long duration. However, pain is common. Grossly, the lesion is often infiltrative and the capsule nebulous. Microscopically, cords of small dark cells may seem to form cylinders, or be in solid arrangement with accellular mucohyalin zones. These tumors exhibit slow, relentless growth with marked tendency to local recurrence, 44 per cent according to Beahrs.[15] Kirklin reports that 23.6 per cent have involved cervical nodes, 29.4 per cent pulmonary metastases, and 60 per cent are dead in 10 years.

Solid adenocarcinoma, anaplastic adenocarcinoma, and mucus cell carcinoma are rare variants. Evidence of facial nerve involvement, cervical metastases, and distant metatastes are commonly found on admission. The prognosis is poor with only 30 per cent free of tumor in 5 years.

Acinic cell adenocarcinoma is an uncommon adenocarcinoma varient of low grade clinical malignancy. Clinically and grossly the tumor resembles mixed tumor. There is marked tendency for these tumors to recur locally, but cervical metastases are infrequent, and the five year survival rate is markedly better than in the other forms of adenocarcinoma.

Surgical treatment of the adenocarcinomas, with the possible exception of the acinic cell adenocarcinoma, is radical resection of the entire parotid, sparing only that portion of the facial nerve not contiguous with or infiltrated by the neoplasm, and radical neck dissection. Postoperative radiation may add to survival time.

Papillary Cystadenoma Lymphomatosa

Representing roughly 5 per cent of reported parotid tumors, the papillary cystadenoma lymphomatosum (Warthin's tumor) is, happily, a benign parotid tumor. Significantly more common in men, the tumor is often mistaken clinically for a benign mixed tumor. Fluctuation may be present. Pain is rare and nerve involvement has not been reported. Grossly the tumor is encapsulated. Its cut surface exudes a brownish fluid and cystic zones are visible. Microscopically, large numbers of lymphocytes are present about distinctly acidophilic epithelial cells which line cystic areas in such manner as to suggest papillary formation. Simple excision, preserving the nerve but removing all of the tumor with a margin of parotid gland, is required. Recurrences were seen in 5.5 per cent of the 291 cases collected by Orloff.[16]

Benign Lymphoepithelial Tumors

Although these lesions may be diffuse in the parotid gland, they are often localized and simulate a true neoplasm of the parotid requiring surgical investigation. They are often bilateral. At the time of operation, the inflammatory character is often suspected. Histologically, lymphoid tissue predominates and epithelial cells present do not suggest a neoplastic process. Biopsy diagnosis of benign lymphoepithelial disease or Mikulicz disease obviates further dissection. Radiation therapy has been advocated.[16]

Miscellaneous Tumors

Such rare tumors as the oxyphilic adenoma, sebaceous cell adenoma, and sarcoma still remain in the category of pathologic curiosities.

Parotitis

Parotitis is mentioned because it may be mistaken easily for true neoplasm. The patient complains of tenderness in the parotid area almost from the onset of the swelling which may be localized. However, if the swelling persists for more than one month, the tenderness may disappear while the seeming localized swelling persists. Trial of antibiotics and observation for three or four weeks are warranted. If surgical exploration is undertaken, the inflammatory nature is often grossly apparent as the trunk of the facial nerve is sought and biopsy with frozen section is done. If the pathologist reports inflammatory process present, further exploration should be terminated and appropriate treatment instituted.

Authors' Series

Our own series of parotid tumors is too small at this time to warrant detailed analysis. Distribution of the type of parotid tumors is as anticipated (table 2). Presence of four inflammatory lesions is a demonstration of the problem of differential diagnosis. In retrospect, two of the inflammatory lesions should have been recognized as such clinically. The other two lesions had been present several months, failed to respond to antibiotics and, in one sialogram, had been interpreted as demonstrating a mixed tumor.

Table 2. Authors' Series of Paratid Tumors.

Mixed Tumors		6
Benign	4	
Malignant	2	
Mucoepidermoid Carcinoma		1
Squamous Carcinoma		1
Adenocarcinoma		3
Fibrosarcoma		1
Papillary Cystadenoma Lymphomatosa		1
Benign Lymphoepithelial Tumors		2
Miscellaneous		7
Hemangioma	2	
Inflammatory	4	
Sarcoid	1	
TOTAL		22

In one patient with adenocarcinoma the facial nerve was deliberately sacrificed. The mandibular branch in one patient and the temporal branch in another were sacrificed. In two patients unanticipated paresis developed but, over a period of six months, return to normal function has been apparent.

There has been insufficient time for determination of recurrence and mortality rates. Thus far, there has been no recurrence of the benign tumors and one local recurrence of adenocarcinoma.

Conclusion

1. Inadequate surgical treatment of tumors of the parotid is still common and is the result of a lack of understanding of the dangerous potential of parotid tumors plus fear of damage to the facial nerve.

2. If results of surgical treatment of benign tumors of the parotid are to be improved, the surgeon must widely expose the parotid gland and identify the facial nerve trunk and its branches. Only in such manner can he carry out adequate resection of the parotid gland with preservation of function of the facial nerve.

3. Surgical treatment of the more malignant neoplasms of the parotid requires sacrifice of the facial nerve, total parotidectomy and radical neck dissection. Postoperative radiation therapy is indicated in the more malignant neoplasms. •

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Dysgerminoma of the Ovary

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In 1931 Robert Meyer[1] first described the ovarian tumor known as dysgerminoma and was the first to advance the concept of the neuter germ cell. He further postulated that this tumor is derived from the gonadal cells prior to differentiation into either male or female types, and that the cells remain in this neutral state as the tumor develops. Meyer expressed the opinion that the seminoma of the testis is the male counterpart of the dysgerminoma, and that these tumors are similar in clinical behavior and response to treatment.

Pathology

Dysgerminomas comprise 3 per cent of all solid tumors in most series and less than 2 per cent in our hospital series of 125 ovarian tumors. Seventy-five per cent of dysgerminomas occur in persons under 30 years of age. Dysgerminomas may vary in size from a small ovoid mass to a tumor that fills the entire abdomen. The tumor is of solid rubbery consistency with external configuration like brain tissue. On cut surface, the tumor is grayish yellow in color. Microscopically there is a distinctive appearance, for the tumor cells are arranged in alveoli separated by loose connective tissue which is infiltrated with an abundance of lymphocytes. The cells are large, ovoid, clear cells (Figs. 1, 2). The centrally placed nucleus is also large and stains heavily. Mitotic figures may be seen. Metastasis may take place by way of the lymphatics or the vascular route, and may extend directly to neighboring organs. The growing impression is that dysgerminomas are more malignant than formerly believed.

Survival rate of 70 patients followed for 5 years was 27.1 per cent, and the mortality rate was 72.9 per cent. One-third of the patients followed less than 5 years have metastasis or recurrence of the tumor. Poor prognosis is indicated in the presence of perforation of the capsule of the tumor, bilateral ovarian involvment, tumor cells within the lymphatics or blood vessels of the ovary, hemorrhagic ascites, and in prepuberal and post menopausal individuals. The rate of recurrence for these for the first year is 52.9 per cent. Two year survival is considered excellent prognosis for the case.

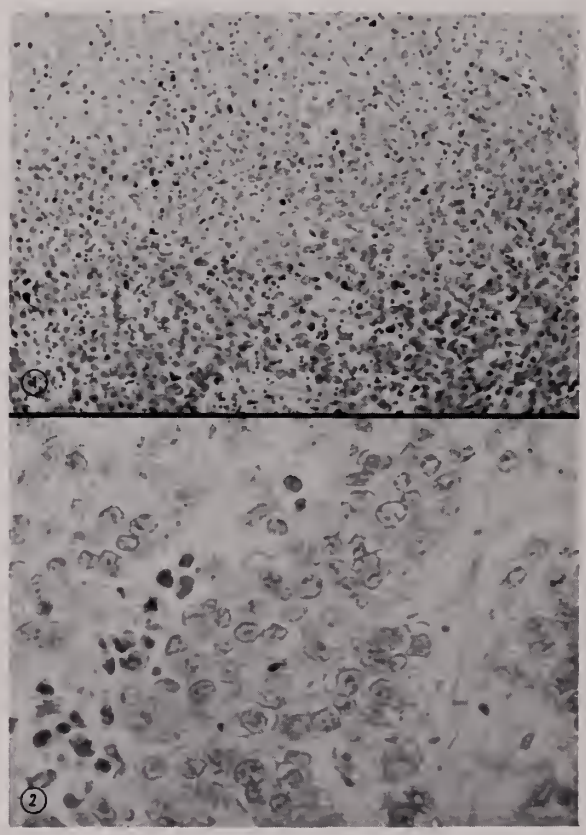


Fig. 1. Low power photomicrograph of dysgerminoma of ovary. Fig. 2. High power photomicrograph of tumor.

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Clinical Symptoms

A pelvic or abdominal mass is invariably the finding that causes the physician to suspect the presence of an ovarian tumor. Ascites, if present, usually indicates poor prognosis. The menstrual history is usually regular. If a positive Friedman or Aschheim-ondek test is found the tumor is probably a granulosa cell tumor or a teratoma, pregnancy being ruled out. Unless both ovaries are involved the patient will have normal sexual development.

Treatment

Removal of only the involved ovary was the first accepted method of treatment, as most of the patients were in the second and third decade of life, and child bearing potentiality of the patient was thought to be more important than the malignant potentiality.

The present preferred treatment is a total hysterectomy with bilateral salpingo-oophorectomy in all cases, regardless of age, followed by x-ray therapy. George Pack has suggested that the greater omentum be removed in all ovarian malignancies as the sweeping action of the omentum collects many tumor cells.

CASE REPORT

This case of dysgerminoma of the ovary was a girl, age 16, a student in high school, whom I first saw Nov. 13, 1957. She was referred to me by an internist because of a large abdominal tumor which extended slightly above the umbilicus. This was nodular and stony hard in consistency. The patient had no other complaints. Her menstrual history was regular. There was no engorgement or color changes of the breasts. X-ray of the abdomen revealed no calcium or pregnancy present, but only a large solid-type tumor. Pregnancy tests were negative. On pelvic examination the uterus could be differentiated from a large hard nodular tumor mass that appeared to be fixed in the left adnexa area extending upward. The patient's blood picture was that of mild anemia. She had 3,800,000 red cells with 12 Gm. hemoglobin. Chest x-rays were negative for metastasis. On Nov. 19, 1957, in surgery, a large solid tumor was found which had a pedicle arising from the left ovarian vessels, with convolutions similar to but firmer than brain tissue (Figs. 3, 4). There were some transplants on the pelvic peritoneum. The regional nodes and also the nodes along the aorta were enlarged. The liver was free from metastasis. The uterus was normal and the right ovary was of normal size. Nodes along the aorta were negative, by frozen section and this was confirmed later by permanent sections. The regional nodes along the left iliac were positive. These were removed along with all of the left adnexal tissue. The pelvic peritoneum was excised widely, removing the transplanted tissue. The right ovary was not removed and the uterus was not disturbed.

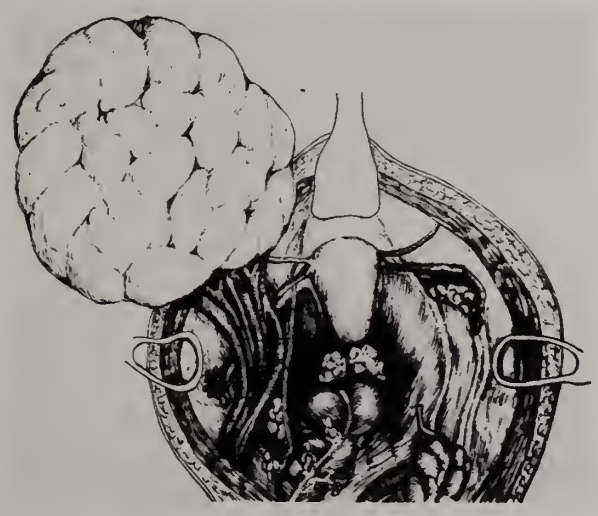


Fig. 3. Dysgerminoma of ovary in a 16 year old girl.

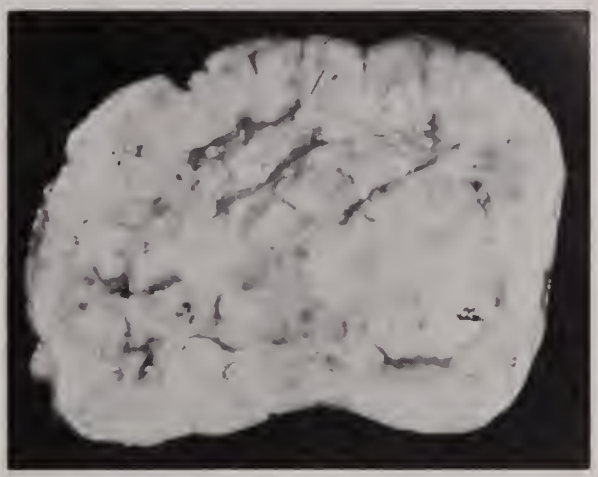


Fig. 4. Gross pathologic section of dysgerminoma of left ovary from a 16 year old girl.

Postsurgically she was treated by x-ray therapy, 2100 r to both anterior and posterior pelvic ports on the left side. These fields were sharply localized, so that the right ovary should not have received any significant amount of irradiation. This patient has been followed with chest x-rays and there has been no evidence of metastasis or recurrence to date, although the time elapsed is very short.

This method of treatment is less radical than the advised treatment for this type of tumor. Following consultation with the patient's mother during surgery at which time radicalism was refused, we elected to perform the less radical procedure.

Conclusions

1. There is nothing new or exciting about ovarian tumors.

2. Four per cent of patients with ovarian malignancies after the age of 39 have had previous hysterectomies. Most surgeons advise removal of ovaries in this age group with associated other disease.

3. Complaints and symptoms are usually due to growth.

4. Diagnosis can only be made by:

a. Periodic general and pelvic examinations.
b. Inclusion of ovaries in complete intraperitoneal examination whenever the abdomen is open.
c. Investigation of any abdominal enlargement in a woman past the menopause.
d. Investigation of all post menopausal bleeding.
e. Investigation of any ovary 5 cm. or more in diameter prior to menopause.

5. Management of malignancies should be uncompromising. Surgery should consist of removing the uterus, tubes, and ovaries, regardless of age, and also of resecting contiguous structures when such resections appear worthwhile. Follow-up x-ray radiation should be given.

6. Later look surgery is usually disappointing because distant metastasis rather than local recurrence is the rule. •

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Capitalism and Our Culture

In recent years, business and industry have gone through the wringer. Businessmen, who are as good and as bad as any other group of men, have been singled out for special treatment. Industry as a whole has been tied down with a network of laws and controls. While some branches of it were treated to special privileges by government, other branches suffered from political discrimination.

During this same period a new conception of government has gained popularity. It is the very concept against which eighteenth century Americans protested and fought—the concept that government is the seat of ultimate power in society anad therefore possesses all the rights which it dispenses provisionally to people as political expedience dictates. Thus the older American concept of the relation of government and people is turned inside out.

Whenever men have yielded to the lust for power and the greed for possessions, there have always been impairments of political and economic liberty of great or less degree. In the past when the going got rough, men pulled in their belts, grumbled, and consoled each other with the literature of freedom, sacred and secular. They were sustained by their faith that those who loved liberty were on the side of the right, and that the right would eventually triumph. They might perish, but their principles would outlast any tyrant. But now the situation is different. Values have been transvalued, and impairments of political and economic liberty are made on principle. Thus the blows struck at limited government and free enterprise do not stop after doing their damage there. They go deeper and strike at the spiritual and cultural bases of our society, at that substratum of our life which we, until recently, have so taken for granted.

In our present situation, the most immediately oppressive things seem to emanate from an overgrown, bureaucratic government. Merely to remove these restraints and directives is of little use, however, if we leave intact the *concept* of omnipotent government—or the seeds of this concept—to spawn more restrictions. An erroneous idea of government must be replaced by a correct idea. But when we seek to refurbish the American idea of limited government, we find that originally the concept stemmed from a spiritual need of rehabilitation. It is at this fundamental level that the most intensive work needs to be done. But because so few people are aware of the importance of this level, almost no one is working at it. Unless this spiritual foundation is rehabilitated, work at the less profound levels cannot endure, touching as it does only the margins of the problem.

By The Reverend Edmund A. Opitz in The Freeman, March 1958, Vol. 8, pp. 37-38.

Surgical Management of Primary and Metastatic Cancers of the Liver

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In earlier years there have been two deterrents to an aggressive surgical attack on cancers of the liver. One of these stems from the memory of a statement made by my professor of physiology in medical school who listed some 70 different functions attributed to the liver, the majority of which were vital and necessary for life. The second deterrent was the fear of tragic and perhaps fatal hemorrhage consequent to radical hepatectomy. The liver, being a huge vascular sponge, is supplied with three great circulations. One is a high pressure arterial system supplying 40 percent of the blood. The other is a low pressure portal venous system which is also afferent carrying 60 per cent of the blood to the liver. It is from this portal circulation that the liver receives the many noxious substances for detoxification from the cesspool of the intestines and all the nutritious elements for synthesis and metabolic needs. The liver, by some miraculous feat of chemistry and in a matter of seconds, renders the one harmless and converts the other into our human tissues. The third is the most intricate, complicated biliary circulation. Knowledge of the tremendous importance of the multitudinous functions of the liver and the equally important fact of its triple circulatory system has prevented me, as an individual, from an earlier surgical attack on the liver for the extirpation of cancer.

Incidence and Distribution

In 1930 I analyzed some 20,000 case histories of cancer at the Memorial Hospital and found that only 0.17 percent of admissions to this cancer institute were for primary cancer of the liver. It is not a common problem in the United States. It may increase in frequency with the more common occurrence of viral hepatitis, which apparently may have some etiologic bearing. Primary liver cancers are more common in the Orient among the Japanese, Filipinos, Indians and Chinese; it is particularly common with the Bantu in Africa, causing 30 to 40 percent of all cancer deaths. The incidence of primary cancer of the liver varies considerably in different parts of the world, which disparity in occurrence has been of great interest to investigators studying the epidemiology of cancer.

Last year a committee of the International Union Against Cancer went to Africa to study the distribution of these liver cancers among the natives, particularly among the Bantus. Liver cancer occurs in the Bantus at a much earlier age than it does in the people of the United States. Many young males are seen with this disease, and the tumor grows with great rapidity—sometimes causing death within three or four months from the time that it is first recognized. If these natives move to urban territories such as Johannesburg, where they live in the same environment as the white people and work under the same conditions, they do not develop primary cancer of the liver with this great frequency. Children born in these urban districts apparently do not develop primary cancer of the liver with greater frequency than those born in white families.

There may be a predisposing deficiency in diet which renders these people susceptible to the development of liver cancer. There is probably also some cryptic carcinogen which is influential. Some English investigators thought it was the ragwort which was growing wild in the fields inasmuch as these people make medicine from ragwort, give it to their children for diseases in infancy, use it as a panacea all through life, and in old age for diseases of senility. An extract of ragwort has been found carcinogenic and is reported to have caused cancer of the liver in laboratory animals. Suguira and Rhoads of the Sloan-Kettering Institute for Cancer Research, a division of the Memorial Cancer Center, have been able to induce primary cancers of the liver by very much the same mechanism. Rats on a diet deficient in vitamin B were given a carcino-

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gen such as butter yellow, and a fairly high percentage of the animals developed primary liver cancer. When vitamin B was added to this basal diet and the animals were given the same dosage of butter yellow, they did not develop primary cancer of the liver. From these experiments one may assume that, as time goes on, cancer of the liver among these peoples, particularly in the Orient and in Africa, will decrease as their nutrition is improved and as the carcinogens are identified and eliminated.

Considering the fact that the liver is the largest organ in the body, that no other organ contains so many epithelial cells and that no other tissue is so constantly bombarded with toxic agents, the surprising fact is not that primary liver cancer is common among the Bantus and Orientals but that it is so uncommon among Europeans and Americans.

Cirrhosis is found associated with 60 to 70 per cent of malignant hepatomas and 30 to 40 per cent of cholangiocarcinomas. It has been estimated that about 3 per cent of Americans with cirrhosis may expect to develop primary liver cancer. It is doubtful if the cirrhosis *per se* is responsible for the cancer in a causative way; it is more likely that both the cirrhosis and the liver cancer have a common cause.

Surgical Treatment of Liver Tumors

My earlier experience with removal of liver tumors has been the occasional extirpation of some hepatic neoplasm which by fortuitous circumstances had lent itself well to excision. In reviewing the early medical literature, the majority of the case reports have been of instances in which a tumor of the liver has become pedunculated, and thus the surgeon has been able to remove it by transfixing and ligating the pedicle. In some instances, the mobile tumor was exteriorized on the surface of the abdomen and the abdominal wall sewed around it, with later transfixion of the pedicle and removal. Very few cures of malignant tumors were obtained under those circumstances, but seldom in earlier years did anyone boldly enter the main liver substance and take out these tumors.

Benign hamartomas may be removed readily without surgical difficulty but often require incisions extending well into the liver substance. Another benign tumor of the liver encountered with great frequency is the hemangioma. We do not ordinarily remove these benign hemangiomas if they be small but occasionally we do have to intervene surgically when complications occur. Such a complication is spontaneous thrombosis in a large cavernous hemangioma which produces acute abdominal signs and symptoms. Also I have had to operate when these large hemangiomas showed growth exacerbations during pregnancy. Sometimes these tumors are quite formidable in appearance but they are easy to remove and not as dangerous as one might think. They are encapsulated and usually have a deep intrahepatic vascular pedicle, which may be encountered in the process of dissecting around the capsule. It is then ligated and severed after which, the tumor can be removed without tremendous loss of blood. Protection afforded by antibiotics and blood banks has given us the courage to do more of these operations.

The primary malignant liver tumors are classified into two main categories based on their histogenesis. One is the hepatoma which runs the gamut from a relatively low grade cancer to one of high grade malignancy and celluarity. They are more common in males than in females and are usually unicentric in origin. They tend to grow at first in an expansile way. Some are situated near the surface of the liver and they may dissociate themselves from the liver as they grow and enlarge much in the same way that a subserous fibromyoma of the uterus would behave. Another type is the cholangioma and the cholangiocarcinoma composed of bile duct epithelium. They are often multicentric in origin. They occur more frequently in women than in men as might be expected in view of the greater frequency of gallbladder disease and cholangitis occurring in women.

Vascular Control Essential to Major Hepatectomy

The surgeon who plans to do major extirpative surgery for tumors of the liver should be thoroughly familiar with the vasculature of the organ. The prevention of uncontrollable hemorrhage is of paramount importance. If sudden hemorrhage occurs before the blood vessels to the lobe being removed have been ligated, temporary arrest of the bleeding may be achieved by strong digital compression of the hepatic artery and portal vein or by the use of a very soft clamp, although it is not safe to keep even such a clamp compressing these vessels for longer than 15 to 18 minutes.

We are indebted to Charles T. Michele of Philadelphia for more precise information on hepatic anatomy. He dissected some 200 cadavers to demonstrate the variations and anomalies

of the hepatic artery. Seventy-five per cent of the cases had the orthodox pattern of distribution, breaking up into the conventional right, middle and left branches. One anomalous arrangement is an entirely separate origin of the right hepatic branch from the superior mesenteric artery. The main hepatic artery then supplies only the middle and left lobes. This arrangement occurred in one of the patients for whom I did a total right hepatic lobectomy. Another anomaly is the situation in which the hepatic artery supplies the right and middle lobes but we do not see the left hepatic artery. A cautious surgeon who plans to ligate the right hepatic artery before removing the right lobe of the liver would first identify the arterial supply to the left lobe. An anomalous left hepatic artery may come from the left gastric artery, hugging the undersurface of the left lobe and not be readily apparent. The arterial supply to the left lobe can also arise from the celiac trunk. I have also twice encountered an accessory left hepatic artery in addition to the normal distribution to the right, middle and left lobes. The right and left lobes of the liver do not have intercommunicating arterial branches across the septum. The liver is a bipartite organ as far as its arterial supply is concerned, just the same as if the patient had two livers as he has two kidneys.

One does not find much arterial bleeding when the interlobar septem is transected but there is much bleeding from the branches of the vein in that region because the left branch of the portal vein going to the left lobe has recurrent branches traversing the interlobar septum into the right lobe. The right portal branch is very short. If the right lobe of the liver is to be removed in its entirety a preliminary ligation of the short right portal branch is a preliminary necessity. In a left hepatic lobectomy the much longer left portal vein can be readily exposed and ligated.

The hepatic veins usually consist of only one main branch from the left lobe but there are several on the right. To do a left hepatic lobectomy one need have no concern about accessory hepatic veins and the major left hepatic vein is easily found at the posterior and superior part of the incision through the interlobar septum. On the right side, draining into the inferior vena cava can be found at least six or eight of these major veins.

Technique of Right Hepatic Lobectomy

The incision we make is first an exploratory vertical or paracostal incision extending into the chest if we find the hepatic lobectomy to be possible. If the right lobe is to be removed the hepatoduodenal ligament is first dissected and the cystic duct is cut. Then the right hepatic duct, the right hepatic artery, the middle hepatic artery, and finally the right branch of the portal vein are dissected, identified, ligated and transected. The portal vein is not done until the last step in this procedure and sometimes, because of difficulty of exposure, we have to wait until we mobilize the liver before the ligation. The liver is freed from the diaphragm and the patient's position is changed on the table by rotation to the right. Two rows of interlocking mattress sutures of heavy chromicized catgut are placed through the septum, then the liver is transected between these sutures with minimal loss of blood. If the falciform ligament can be preserved it is tacked down over the raw area of incision and if not a free peritoneal graft may be taken from the parietal peritoneum and placed over the denuded cut surfaces. This procedure is important because it lessens the amount of serum and bile leakage which occurs from the cut end. At the time the right portal vein is ligated the left lobe suddenly swells and becomes turgid, firm and purplish. In some patients the liver function improves almost immediately after the operation due to this prompt change in circulation. If the blood has been going to the right lobe but not going through much normal liver tissue, the patient may suffer from inadequate liver function. Just as soon as the flow is diverted to the normal left lobe, all of the blood receives the benefit of the good function still inherent in the normal left lobe.

Cancer of Gallbladder

Cancer of the gallbladder has been a problem because we have not been familiar with the phenomenon of metastasis within the liver. The situation differs entirely from that of invasion of solid tissue such as a sarcoma invading muscle or cancer invading the lip. In the case of gallbladder cancer the invasion takes place through the gallbladder bed into the vascular channels of the portal system where the cells break off and are disseminated through the liver where they produce secondary deposits. Because of this sequence of events, even a cancer that is only superficially invading the surface of the liver may very shortly have secondary and tertiary deposits within the liver parenchyma.

Because of this frequent occurrence and the very low cure rate for gallbladder cancer by

cholecystectomy and excision of the gallbladder bed, we have advocated and practiced total right hepatic lobectomy for all gallbladder cancers. We have employed this procedure for this indication seven times to date.

In two recent cases we have performed middle lobe hepatectomy. We hope this may prove to be a useful procedure for gallbladder cancer. In removing the middle hepatic lobe it is necessary of course to spare the right and left branches of the portal vein and the right and left hepatic ducts. The gallbladder is removed in continuity with the middle lobe. Both of the patients have done well postoperatively but the time is too short to evaluate this more conservative operation.

Surgical Treatment of Metastatic Cancer in the Liver

As a palliative measure, it is sometimes worthwhile to attack metastatic cancer within the liver. It is not rational surgery to pick out little nodules from the liver like you would raisins out of a cake. We divide our patients with metastases to the liver into three categories depending upon the time of appearance of the metastases in relation to the time of treatment of the primary cancer. First, there are the precocious metastases. If the patient comes to us with a nodular liver or palpable mass, and there are no symptoms of the primary site, we can conclude that this is a very bad situation. The primary cancer must be so small that it does not produce focal symptoms at the point of origin, and it must be a very cellular tumor to have produced bulky metastases without itself growing to an appreciable size. The prospect of help for these patients must be very slight.

The second situation is the so-called synchronous metastasis indicating that the primary cancer and metastasis in the liver are discovered at the same time. These are commonly discovered when an exploration is made for example, for cancer of the stomach or cancer of the colon and metastatic cancer is found in the liver. What to do depends on one's judgement and the conditions surrounding the individual case. I have not had any success whatsoever of doing hepatic lobectomies for metastatic cancer primary in the stomach, but I have had quite a series of patients who have cancer of the colon with metastases to the liver, who have secured palliative benefit from hepatic lobectomy.

Metachronous metastases, the third category, are those in which the primary cancer has been treated and controlled, or let us say, locally cured. At some subsequent date, the longer the better, evidences of metastasis to the liver appears. This is the most favorable setting for a lobectomy or segmental excision of metastatic cancer of the liver, because there is some reason why there has been growth restraint of the cancer in these people. I have done this twice for melanoma in the liver metastatic from ocular melanoma. These patients have lived in comfort for one to three years.

Liver Regeneration After Major Hepatectomy

Patients who have had a major hepatectomy tend to have marked hypoproteinemia, and one needs to be very careful about giving them the proper diet rich in protein. I do not mean intravenous amino acids just to give them a positive nitrogen balance. I mean old-fashioned proteins by mouth absorbed through the intestinal tract and carried into the portal system up to the liver where it can be used. The administration of protein food after right hepatic lobectomy causes some danger of getting ammonia intoxication. Therefore, the postoperative period of management requires every caution and attention.

The liver has an irresistable urge to regenerate itself. The internists knew it many, many years ago, because after acute yellow atrophy or after phosphorus or carbon tetrachloride poisoning, they watched the liver regenerate as much as 50 to 100 Gm. a day. I often tell my students that even the ancients knew about it, reciting the fable about Prometheus who, you may remember, stole a bit of fire from the sun and gave it to the humans out of sympathy for their plight. Jupiter, in anger at his presumption, chained him on the mountain top where the vultures ate his liver all day long, but by the next morning it had grown back. We have taken the livers from a series of cadavers and cutting through the interlobar septum have divided it into the right and left lobes. In a fairly large series, we have found that the left lobe weighs 18.2 per cent of the total normal weight of the liver. That means that if we take out the right lobe of the liver that the human has less than 20 per cent of liver substance from which to regenerate a new liver. The little left lobe can take care of it and it becomes as large even as a normal liver.

In rats and mice one can excise 70 per cent of the liver, and within three weeks the animal will have a liver larger than it had in the beginning. In a series of animals with variable portions of

the liver removed it will be found that the animals from which the largest portion of liver has been excised will regenerate more rapidly and will produce in the end larger functioning livers. The impetus for regeneration is very, very great and is a proportionate stimulus to the amount of liver removed. It depends a great deal also upon the portal venous pressure. We have done experimental surgery in dogs designed to increase the portal pressure which is measured in mm. of water before hepatectomy and after hepatectomy. We have arterialized the portal vein by diverting part of the gastroduodenal artery into it or the splenic artery into the splenic vein. When the portal vein has been arterialized the regeneration is much more rapid. We have never applied this knowledge or procedure to a human patient but we are prepared to do so in the face of impaired circulation to the remaining left lobe and as a method of increasing regeneration of the left lobe of liver. If we find a patient in whom the left lobe of the liver does not appear to be viable I would have no hesitation in diverting the artery into the portal vein in order to insure that the patient would live.

In some animals we have given cortisone and have found more rapid regeneration of the liver. Cortisone has, I am sure, saved the lives of two of our human patients who were almost moribund for reasons we could not determine. Our internists gave them cortisone as a stimulant and the patients were demanding food on the following day. Now we give cortisone, guardedly, to our patients postoperatively. I do not know whether cortisone is the humoral factor responsible, but in experiments on parabiotic rats we have taken out 70 per cent of the liver of one rat leaving the liver of its attached twin intact. There was some regeneration of the removed liver, but the important observation was that the liver in the unoperated twin was the one showing amazing hyperplasia.•

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Management of the Patient with Gastric Cancer

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Cancer of the stomach has long engrossed the attention of all disciplines in American medicine. Long ago our federal government selected this regional cancer for an intensive pilot study and appointed a National Gastrointestinal Cancer Advisory Committee, of which I have long been a member and in later years the Chairman. The function of this Committee has been to review applications for grants-in-aid, to coordinate research on gastric cancer in various cancer institutes, cancer hospitals, teaching institutions and general hospitals and at stated intervals to conduct symposia which brought into review the accomplishments of recent research on this subject. The programs of these congresses have been published in monographic form and afford an interesting recital of the evolution in our knowledge of gastric cancer during the past 20 years.

Read before annual meeting of Spokane Surgical Society, Spokane, Wash., April 12, 1958.

Incidence of Stomach Cancer

Contrary to our experience with other malignant tumors, cancer of the stomach seems to be decreasing in the United States. A quarter of a century ago, 25 to 30 per cent of all cancer deaths could be attributed to cancers of the stomach. At the present time, certainly no more than 15 per cent of cancer deaths are due to gastric cancer. During the same interval, cancers in other locations, notably the lung, colon, and rectum, have increased in frequency. The reason for the decrease in frequency of cancer of the stomach in this country has not been discovered. Epidemiologic studies are in progress. We surgeons who

treat gastric cancer wish it could be credited to our surgical efforts, but the percentage of cures is still too small to account for the improvement.

An epidemiologic team from the Memorial Center has been collecting possible etiologic data in two countries, Japan and Iceland, where the incidence of gastric cancer is abnormally high. A possible contributing factor in Iceland could be the great consumption of smoked fish and smoked meat. Perhaps the process of smoking or curing meat and fish adds carcinogens or carcinogenic hydrocarbons to these staple foods.

Cancer of the stomach also occurs with great frequency in Costa Rica. On the occasion of a recent visit, I was impressed by observing in one of the hospital wards a group of 20 patients with cancer of the stomach awaiting operation. Young surgeons who are investigating the problem there believe that they too have found a possible etiologic factor. The victims are mostly country people who eat great numbers of tortillas which are smoked; these tortillas are also prepared from corn treated with ashes. Possible carcinogens are being investigated.

The economic importance of gastric cancer is revealed by comparing its incidence with another great American illness—poliomyelitis. In every million American children there are 750 victims of poliomyelitis. Of these, 430 recover without any residual defects, 175 recover with some residual paralysis, and 45 die. For every one million American adults of cancer age, there are 1,700 with cancer of the stomach, no spontaneous recoveries, only 85 five-year cures and 1,615 die. I do not wish in any sense to belittle or lessen the importance of the campaign against poliomyelitis. It has been richly rewarded. I only wish to emphasize that as far as cancer of the stomach is concerned, we have failed to arouse proportionate public and professional interest.

Detection of Gastric Cancer

I wish there were some specific signs or symptoms which could be used for the early detection of gastric cancer, but unhappily there are none. The textbook picture of gastric cancer is that of the advanced and inoperable stage of the disease. Progressive weight loss can be due to many other diseases—e.g., cancer of the pancreas may cause more dramatic deterioration. The same is true of pain and epigastric distress which of course are not specific for gastric cancer because the stomach is the biggest "liar" in the abdomen. Cancers on the lesser curvature are attended by pain more frequently than those in other segments. Cancers at the inlet or outlet of the stomach causing obstruction result in dysphagia or vomiting as the case may be.

Study of Possible Precursory Groups

One of the research projects sponsored and encouraged by the National Advisory Gastrointestinal Cancer Committee was designed to find certain precursory groups of patients in whom gastric cancer might be detected at an early stage. The first group studied is composed of apparently normal adults who did not have indigestion and were over 40 years of age. This study was done concurrently at several centers. It was discovered that 1 in every 800 such males had an early gastric cancer so small as to be asymptomatic. Would it be practical to apply this knowledge by surveying the entire population of the U.S.A.? The answer is that such a survey is not feasible because there are 45 million Americans over 40 years of age in this country. If roentgenologists were occupied to fluoroscope these people, one every five minutes, the roentgenologists working eight hours a day, five days a week, the project would occupy the full time of some 1,800 roentgenologists. The plan is impractical inasmuch as such examinations would have to be repeated at least every six months. It is sufficient to know that 1 of every 800 American adult males is carrying a latent asymptomatic cancer in his stomach.

The next precursory group is composed of those patients with anacidity. We never discharge from our out-patient service or our private offices any patient who has achylia gastrica. These patients are examined yearly since they have greater incidence of gastric carcinoma than the general population; possibly about 1 out of every 100 will develop gastric cancer.

The third precursory group comprises those patients with pernicious anemia. This group is most productive of gastric cancer. About 5 to 6 per cent of these patients ultimately may be expected to develop cancer of the stomach. Gastric atrophy, which is inconsistent but still a fairly frequent precursor of gastric cancer in general is always present in patients with pernicious anemia. This relation of the two diseases was noted in earlier years but convincing evidence was obtained only after the discovery of the specific management of primary anemia. The application of this knowledge has enabled these patients to live long enough to develop gastric cancers. Anyone with primary anemia should have frequent examination of the stomach in

order to detect early asymptomatic gastric cancer. A corollary to this relationship is the assumption that anyone who could find a means of reversing the atrophic gastritis constantly present in patients with pernicious anemia probably would discover at the same time a means of preventing some gastric cancers.

Relation of Gastric Polyps to Gastric Cancer

We have been concerned with patients who have gastric polyps and recently have reviewed our experiences at the Memorial Center. The incidence of gastric cancer has been higher in patients with multiple gastric polyps than in those who have single gastric polyps. Those single polyps that are less than 2 cm. in diameter have been consistently benign—at least in our experience—but perhaps this should not be applied as a general rule. Many of the larger ones have been polypoid carcinomas.

There are differences of opinion on the management of gastric polyps. Dr. Wangensteen and I hold somewhat different viewpoints. He does not operate on their discovery believing that surgical intervention is unnecessary unless some changes in the radiographic or fluoroscopic appearance or the clinical aspect occur, or there is evidence of infiltration. Admittedly, we find that polyps less than 2 cm. in diameter and occurring singly have been benign. However, the operation of gastrotomy and polypectomy is relatively safe and provides an opportunity to inspect and biopsy the gastric mucosa. We therefore remove these ployps as they are discovered.

Accuracy of Diagnosis

It is not difficult to diagnose established cancers of the stomach. If we examine the records of all patients seen who have developed gastric cancer, we find that on our first thorough examination we are able to make a correct preoperative diagnosis in 96 per cent of the cases. We can do this with the facilities at hand—the fluoroscope, serial gastro-intestinal x-ray films, gastroscopy plus cytologic diagnosis. Papanicolaou employed material from the Gastric Service of the Memorial Cancer Center for some of the early work he did on the cytologic diagnosis of gastric cancer. We are not concerned about using cytologic diagnostic methods for the obvious cancers of the stomach since the diffuse or fungating cancer is evident to anyone. We believe its great indication is as a supplementary procedure on those patients in whom the diagnosis is in doubt. Perhaps the percentage of diagnostic errors is greater in studying gastric exfoliation than it is in studying cells from the uterus. Occasionally gastric cystologic study will give us a positive report which added to the gastroscopic image, x-ray diagnosis and physical examination enables us to increase our percentage of diagnostic accuracy.

Diagnosis and Management of Ulcerative Defects

One of the most controversial problems in diagnosis and management has been ulcer of the stomach. I will leave for other physicians the discussion and ultimate determination as to whether a given gastric ulcer may become malignant. The question of practical importance for those of us who are called upon to treat a patient is whether or not this ulcer in this individual patient is cancer. We are immediately concerned for the individual rather than with the academic question of whether or not an ulcer in the stomach, if left alone, will ultimately become malignant, or whether an ulcerating cancer was preceded by a benign gastric cancer.

I do not believe *any one* of the different items of information about an ulcerating lesion in the stomach can be applied specifically in establishing the correct differential diagnosis between benign gastric ulcer and ulcero-cancer. We decide to operate or not to operate on the summation of findings rather than because of one specific feature about the ulcerative defect.

There are several items on which we base our final decision to operate or to employ conservative medical management. The size of the ulcer has been given considerable importance. Once it was commonly said that any ulcer larger than a quarter was malignant. There are many exceptions to this opinion—e.g., there are some very large ulcers which are benign and some tiny ulcers that are malignant. Size alone is not a sufficient diagnostic criterion. It is true, however, that the larger the ulcer the greater the tendency to be malignant. Thus, in ulcers of 1 cm. in diameter about 10 per cent are malignant. If the ulcer is 2 cm. in diameter, 20 per cent are malignant. Those 3 cm. in diameter have an incidence of 30 per cent malignancy and the figures proceed in that fashion.

Another item is the location of the ulcer in the stomach, but here again one cannot be absolute. It has been said that all ulcers on the greater curvature are malignant; in 30 years of study and management of these tumors I have seen only three benign ulcers on the greater curvature

which contradicted this rule. If one must have an ulcer of the stomach the best place to have it is on the lesser curvature, near the incisura, because this region carries a high percentage of benign ulcers. The frequency of ulcero-cancer and benign gastric ulcer at the cardia on the lesser curvature is 50-50. In our experience ulcers in the immediate prepyloric area on the lesser curvature have been malignant in 65 per cent of cases.

The gastroscopic image is another item to be included in our summation. If it is a clean cut ulcer, we do not know whether it is benign or malignant. If there is necrotic tissue in the ulcer, we believe it to be malignant which is usually the case. The rugal pattern too is significant. There is an old statement to the effect that if the rugae converge toward the ulcer and the folds are apparent up to the margin the ulcer is probably benign. If the pattern stops before reaching the ulcer and there is a plateau around the ulcer, this is assumed to be evidence of infiltration and the ulcer is probably malignant.

Gastric analysis is not as helpful as one might think. Many patients with ulcerating cancer have some free hydrochloric acid in the stomach and the acid-secreting cells will respond to histamine stimulation. Some will have normal acidity and a few may even have hyperacidity. This observation is not true of polypoid cancer but may be with ulcerating cancer.

What about the therapeutic test conducted by putting the patient on conservative medical management? Is this enough? No, it is not. Even when immediately successful, the medical treatment of true gastric ulcer is followed by recurrence in 60 or more per cent of patients. It is also true that you can advise conservative management for a patient with ulcerating cancer and sometimes get complete relief of symptoms. The patient may even gain weight. I had one patient who gained 40 pounds in a year. X-ray study may show evidence of healing but the healing is a bit bizarre and not like that of the benign ulcer. Benign ulcers tend to heal equally in all three dimensions whereas ulcerating cancers tend to heal from the depth up, which means that the crater is filled with cancer tissue. Palmer has shown that epithelization may take place right over the ulcer. Therefore, if you are going to give a patient a therapeutic test and check by x-ray, do not base your judgment on diminution in size of the ulcer. You must demand that the ulcer disappear completely and not leave any residual thickening or induration of the gastric wall; otherwise, the possibility of ulcero-cancer has not been eliminated.

It is my opinion that surgical removal is better for these gastric ulcers than conservative management. One of the reasons is that the pathologist may not be able to make an accurate gross diagnosis even with the specimen in his hands. In a hundred cases called benign from gross appearance, he will find 12 to 15 in which microscopic study will reveal evidence of gastric cancer in the wall. I contend that the operative mortality for subtotal gastrectomy for benign gastric ulcer does not approach the hazard of incorrect diagnosis. If the pathologist cannot make a correct differential diagnosis on gross inspection, how can one expect the surgeon to diagnose it in the opened abdomen or the roentgenologist to diagnose it from a shadow seen on an x-ray film?

Indications for Extent of Removal

We see more and more patients referred to us with recurrent cancer of the stomach. These patients have had subtotal gastrectomies and for the recurrent cancers we have been doing total gastrectomies, removing the rest of the stomach and adjacent organs. Of course a more adequate operation should have been done in the first place. McNeer of the Gastric Service in the Memorial Cancer Center undertook a survey in a group of New York hospitals in order to determine adequacy of subtotal gastrectomy for cancer. He utilized approximately 100 cases in which the patient had a gastric cancer, had undergone subtotal gastrectomy and recovered, had been discharged from the hospital but finally readmitted and died from recurrence. The hundred cases used were those in which post mortem information was available. In 40 per cent of these cases, there was recurrent cancer in the remnant of the stomach. In 11 per cent there was recurrence in the duodenal stump, and in 20 per cent there was cancer in perigastric lymph nodes. These findings indicate that the removal of the stomach and duodenum for cancer had been inadequate in half of the cases. If one adds the 20 per cent who should have had dissection of the perigastric lymph nodes, it is realized that 70 per cent of the patients had not had adequate first operations.

This study of the results of subtotal gastrectomy for cancer as performed in a group of New York hospitals offers cogent argument for revalu-

ation of the indications for total gastrectomy. Of course the mere ability to perform a total gastrectomy with relative safety is not the proper indication for it. In the treatment of gastric cancer as in treatment of any disease the patient must be considered as an individual and therapy applied as the case may demand. We have certainly been influenced by these findings and have extended the scope of gastric surgery. Our definition of an adequate operation is quite different from what it was 10 years ago, but we still find a place for subtotal gastrectomy and have established no absolutely inflexible rules.

For cancers of the distal third of the stomach, a subtotal gastrectomy is done removing the entire lesser curvature. A perigastric lymph node dissection is completed. The spleen and pancreas are not molested. Anastomosis is done, employing the greater curvature side of the fundus. Lymph flow studies using Direct Sky Blue injections indicate that if we wanted to remove the entire lymph drainage basin of cancers of the distal third of the stomach, it would be necessary to do an associated pancreaticoduodenectomy which we have not done as yet. The lymph nodes along the hepato-duodenal ligament and along the superior margin of the pancreas are dissected and removed.

In cancers of the middle segment of the stomach metastatic dissemination to so many groups of nodes occurs that we believe total gastrectomy should be employed. We also do splenectomy and subtotal distal pancreatectomy, removing the pancreas up to the level of the crossing of the superior mesenteric vein in association with the total gastrectomy.

In the case of cancers of the proximal third of the stomach, it has been found that remote metastases even into the infrapyloric group of glands occur in 14 per cent of the cases and to other groups with fairly high frequency. Therefore, for cancers of the gastric cardia, unless there is some contraindication, we do a total gastrectomy of the extended type with splenectomy and subtotal pancreatectomy. If the patient is elderly or a poor surgical risk and has a very early cancer, we might do an abdominal or transthoracic cardiectomy.

Technique of Extended Total Gastrectomy

A vertical abdominal incision, or a transverse or oblique incision ending at the costal margin, may be employed for the initial exploration. If the cancer is operable, the incision is extended into the chest by an abdominothoracic approach. The greater omentum is freed from the transverse colon. If the transverse colon is involved or adherent, it is resected and a primary end-to-end anastomosis is accomplished. Because of this possible involvement, we always have our patients prepared for colonic surgery. Strangely enough, we have had better results in those cases in which cancers of the stomach are invading the colon than in those in which it was free—perhaps because the extent of the resection is necessarily so much greater. After the colon has been dealt with, the dissection is carried from the right and from the left. A liberal margin of the duodenum is taken and the stump of the duodenum is closed in layers and inverted. Then on the patient's left the peritoneal gutter is incised and the spleen elevated. With it of course comes the pancreas and the vessels taken off the anterior surface of the kidney and the adrenal. All of the involved tissues are swept to the left until entirely free and the stomach is suspended only by the esophagus. After transection of the pancreas at the level of the superior mesenteric vein, the stump is closed and inverted with mattress sutures. The ducts of course are ligated with silk. The esophagus is transected and the anastomosis constructed by a termino-lateral esophagojejunostomy. I always construct a supplementary enteroenterostomy because without it many of these people who have had total gastrectomy will complain even years later that they will be awakened in the middle of the night with a mouthful of bile which has been regurgitated.

End Results of Total Gastrectomy

When the end results of total gastrectomy for cancer are considered they must be viewed from two aspects. One is the rate of survival for the period of definitive cure. The other aspect which is cause for concern is the general health and digestive functions of the patient after a total gastrectomy. Is he a gastric invalid? Does he continue to suffer and is it worthwhile? We have evaluated these problems by getting our patients back for study, some even 10 years after they have had their stomachs removed. Many patients did not have an adequate diet. Many of our totally gastrectomized patients were subsisting on three small meals a day and they were not adequate meals. Furthermore, even 10 years after removal of the entire stomach, two-thirds of these patients had dumping syndromes. Many surgeons have told me that they did not find the dumping syndrome to be an important post-

operative complication in their patients. I believe that the number of cases of post-gastrectomy dumping syndrome found will be in direct proportion to the amount of time that we, as surgeons, spend questioning our patients about their digestion and comfort after the operation. The responsibility of the surgeon extends beyond the operating room and the immediate postoperative recovery. The totally gastrectomized patient now receives five small meals of high protein and low carbohydrate content daily.

Metabolic studies have been done on our patients after total gastrectomy. These patients volunteered, and some of them were in the hospital from six weeks to five months. It was found that, after total gastrectomy, the patients had increased output of fat in the stool which varied with the individual. The increase was not always clinically apparent. They also had creatorrhea because they were not digesting proteins completely. It has been claimed that this deficiency will not be as serious if an esophagoduodenostomy is used so that the food passes through the duodenum and thereby stimulates external pancreatic secretion. This observation is true, but its value is perhaps not sufficient to compensate for the added hazard of attempting to connect the duodenum to the esophagus.

The question of substitute stomachs has been raised and various devices have been employed. A section of the transverse colon has been used between the esophagus and duodenum, and a segment of the jejunum is now enjoying some popularity. The right half of the colon has been interposed between the esophagus and the duodenum. These transplants may act as reservoirs. For instance, the right colon acts very well as a reservoir, but its employment does not lessen the incidence of the dumping syndrome—the appearance of the syndrome is merely delayed. Fat absorption is just as bad in these patients as it is in total gastrectomy without a reservoir. Using vitamin B_{12} labeled with radioactive cobalt, we found diminished uptake of the vitamin. Theoretically these people should have primary anemia. Our patients have gone as long as 15 years without developing primary anemia but we have taken the proper precautions to avoid it.

The dumping syndrome is produced by the too rapid absorption of carbohydrates and not by the proteins or by fats. The blood volume decreases and blood concentration goes up. These very rapid interchanges occur when the carbohydrates get into the small intestines speedily. The potassium level increases and electrocardiographic changes indicating coronary ischemia correspond with the period of symptoms. The way to combat the syndrome of course is to give patients a high protein, high fat diet with minimal amount of carbohydrates.

Definitive Cure Rate

Twenty years ago, a study of end results in the treatment of gastric cancer showed that of every 100 patients coming to the hospital, 50 were hopeless at the time they applied and were admitted for treatment. Of the 50 remaining, only 25 had resections and the other 25 had palliative or so-called short circuiting operations, laparotomies or nothing. So, only 25 of the original 100 patient applicants had any prospect of cure whatsoever. Twenty years ago, the operative mortality was 22 per cent. A residue of only 17 or 18 patients of the original 100 left the hospitals alive and apparently free of cancer. Two-thirds of them were dead at the end of three years and three-fourths at the end of five years. At the end of five years, therefore, only 2 to 6 out of 100 were living. In 1950 we published a report of cases treated prior to 1945. There was a definite improvement over the earlier records. We were then subjecting 82 per cent of our patients with gastric cancer to some operative procedure. Our operative mortality was 9.8 per cent. Of those individuals surviving the operation 34.5 per cent were living and well for the five year period of definitive cure. This record is better than we will ever enjoy again because since 1945 we have been doing more of the extended operations for advanced cancer and therefore will never have 34.5 per cent of resection survivors.

An analysis of our experience from 1931 to 1955 has recently been completed. It is not necessarily fair as representing our present effort because in those early years we certainly did inadequate operations. As to the degree of malignancy or anaplasia, not many of the cancers were grade I, less than 5 per cent. About a third have been classified as grade II; a little more than a third, grade III. About 24 per cent are grade IV. Five year survivals without recurrence in the interval show that 11.9 per cent of the cases are in grade I, 48 per cent in grade II, 28 per cent in grade III and only 10 per cent in grade IV.

As the years have gone by, we have increased the number of resections and decreased the percentage of by-passing operations. A gastroenterostomy for an obstructive lesion of the pylorus

enables the patient to live longer and suffer more, which is not the desired accomplishment. At the present time there are very few patients we refuse for operation. The number of non-curative operations is approximately the same—about 50 per cent. The palliative operations of choice are now resections, rather than gastro-enterostomies or gastrostomies. The operations we call curative—we do not actually expect universal cures but do the procedure with a curative intent—have more than doubled in the period. The presence of an abdominal mass indicates a lower grade of curability than when the mass cannot be palpated. This means that if you can feel the cancer in the stomach, the patient does not have as good a prospect of being cured or having a curative operation. However, it does not necessarily imply that the patient has an inoperable cancer. It still may be operated upon and with an intent to cure in almost a third of the cases.

The duration of symptoms has no influence at all on the operability of these gastric cancers. I wish it were so. The same finding applies to osteogenic sarcoma. If a patient with bone sarcoma has a long history followed by an amputation, there is a much higher cure rate than if there is a short history followed by an amputation. This simply means that in a patient with a short history the tumor has grown so rapidly and the discomfort has become so acute that the patient has become alarmed and seeks medical advice at an earlier time. The same thing is true of patients with gastric cancer. The explanation rests in the fact that the more malignant and therefore less curable gastric cancers, grow more rapidly and induce symptoms earlier.

Age seems to make very little difference except in patients under forty. In the younger group, the opportunities are not so good for carrying out curative operations as in the rest. It remains about the same through all decades until around eighty years. The operative mortality goes up at a rapid rate with advancing age. It becomes almost prohibitive in patients who are over 70 years of age.

There is a relation between the number of five-year survivals and the type of symptomatology. These patients who have had the ulcer syndrome are the most favorable. Next most favorable is the group who had cryptic anemia leading to early discovery of the cancer. Patients whose predominant symptoms was indigesion had a very low cure rate, less than 7 per cent perhaps because this discomfort was readily tolerated and self-treated.

The five year survival in relation to gross pathology showed that polypoid and ulcerating cancers offer the best prognosis with 44.8 and 45.5 per cent survivals. Those cancers with ulceration and infiltration had only 20 per cent cures and cancers of the diffusely infiltrating type were cured in only 6 per cent of cases.

An important factor in the survival figures is that most recurrences show up within the first three years after gastrectomy regardless of whether the nodes were involved or whether the cancer was diffusely infiltrating or not. If the patient had lived three years after the gastrectomy for cancer he will probably live out his life expectancy unless he dies with an intercurrent disease. It is not like melanoma, synovioma or breast cancer which you cannot pronounce cured after five years because of the constant possibility of latent metastasis. With gastric cancer, if the patient is to have a recurrence in the stomach, it usually is apparent within the first three years. If my patients live for three years after total gastrectomy, I do not guarantee a cure of course, but I can assure the families that there is an excellent chance that late or delayed metastases will never appear. This is true of gastric cancer more than of any other malignant neoplasm.

Gastric cancer is still a most serious problem, and the number of patients salvaged by these operations is not great enough to cause rejoicing.•

139 East 36th Street (16).

A Five-Year Survey of Primary Bone Tumors

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SPOKANE, WASHINGTON

All bone tumor admissions to Sacred Heart Hospital from January 1952 through December 1956 were reviewed. There were 79 primary tumors of bone subjected to surgery either for biopsy or for definitive surgical treatment. During this five year period, admissions to Sacred Heart numbered 112,265 cases, not including new births—a ratio of one bone tumor case for every 1,450 admissions. Fourteen of the tumor cases were proven malignant by biopsy (table 1). You can see that multiple myeloma was most frequent, followed by osteogenic sarcoma.

Table 1. Malignant Tumors.

Type	Cases
Chondrosarcoma	1
Fibrosarcoma (endosteal)	1
Multiple Myeloma	6
Osteogenic Sarcoma	4
Undifferentiated Cell Tumor (or rhabdomyosarcoma)	1
Reticulum Cell Sarcoma	1
Total	14

I am sure that there were many other myeloma cases admitted during these years that were not subjected to biopsy and therefore not included in this series.

There were 65 benign bone tumors included in the study and classified as shown in table 2. As you can see, osteochondromas were by far the most common benign tumor, followed next by osteomas, and then giant cell tumors.

Treatment

Benign tumors were treated by various accepted surgical methods, such as excision, curettage, or curettage and bone graft.

Table 2. Benign Tumors.

Type	Cases
Ademantinoma	2
Chondroma	4
Chondromyxoid Fibroma	1
Enchondroma	3
Eosinophelic Granuloma	4
Giant Cell Tumor	6
Non-Ossifying Fibroma	1
Ondontoma	1
Ossifying Fibroma	2
Osteoma	11
Osteochondroma	28
Osteoid Osteoma	2
Total	65

The aim of treatment of malignant tumors is ablation of the growth either by radical excision, where feasible, or by amputation. Generally speaking, the accepted level of amputation for malignant bone tumors is through the bone above the one affected by tumor. Coventry and Dahlin,[1] in reporting 430 cases of osteogenic sarcoma from the Mayo Clinic, stated that this principle had been followed with one modification. In sarcomata of the distal end of the femur most of their reported cases had the amputation through the upper part of the femur. They stated, though, that in recent years some of the cases had had disarticulation at the hip. Luck,[1] when discussing Coventry and Dahlin's paper, favored disarticulation of the hip when involvement of the lower end of the femur existed.

In this series of cases only one disarticulation of the hip was performed for involvement of the distal end of the femur; likewise, in this series neither hemipelvectomy or shoulder girdle disarticulation, as recommended by Pack,[2] was performed.

Cade,[3] and others, take such a pessimistic view that no surgery is recommended—only roentgen

Read before the Spokane Surgical Society Annual Meeting, Spokane, Washington, April 12, 1958.

therapy. Hatcher[1] of Chicago, in discussing Coventry and Dahlin's paper, stated that surgical ablation is preferable to irradiation. He questions the value of hip disarticulation over mid-thigh amputations.

Since early surgical removal is the most successful treatment at the present time, it must be instituted prior to lethal embolization. It is therefore essential to amputate as soon as possible after the correct diagnosis has been made. The problem then arises whether to depend on fresh frozen sections from the lesion or to wait until the pathologist has had time to prepare and study his permanent sections. Coventry and Dahlin[1] established their diagnoses by frozen sections and did immediate amputation. They applied two tourniquets, one above the tumor and one above the proposed site of amputation, thus precluding embolic dissemination by biopsy. Luck,[4] and others, do not depend on frozen section, feeling that certainty of diagnosis is of more importance than danger of embolization of tumor cells. Pack,[5] in a paper read at the American Orthopaedic Association meeting in 1951, made the following statement regarding sarcomata of the soft somatic tissues, but did not specifically mention bone malignancies: "If incisional biopsy is necessary, the following precautions should be observed: On an extremity a tourniquet is placed above the tumor. After the biopsy the tourniquet remains in place while frozen section is prepared and analyzed. If the tumor is benign or of low-grade malignancy, local excision or radical dissection is immediately completed. If the report classifies a lesion as a sarcoma with invasive propensities and the regional anatomy is not conducive to local radical removal, an amputation is done proximal to the tourniquet."

Prognosis

MacDonald and Budd,[6] in reviewing the registry of bone sarcomas in 1941, found 654 cases of tumors classified as osteogenic sarcoma that had been treated five years or more prior to their survey. They found 97 cases, or 14.8 per cent of this total, that were considered to be five year cures. Likewise, of 115 instances of tumors classified as chondro-sarcomas there were 21 five year survivals, or 11 per cent, giving a total of 118 five year survival cases of osteogenic sarcoma in the bone tumor registry as of that date. These 118 cases were carefully reviewed microscopically and 37 cases, or 31 per cent, were primarily of the fibroblastic type; 56, or 46 per cent, belonged to the chondroma series, and only 14, or 12 per cent, were true bone-producing sarcomas (table 3). They concluded that true osteosarcoma is almost uniformly fatal, chondrosarcoma is distinctly less malignant, and fibrosarcoma is in a median position.

Table 3. Relative Incidence of Types of Osteogenic Sarcoma.

Type	Cases	% 5-Year Survivals
Osteosarcoma	14	11.8
Chondrosarcoma	56	47.5
Fibrosarcoma	37	31.4
Others	11	9.3
Total	118	100.0

In this series of 14 malignant cases some did not have a five year follow-up; briefly, though, all four patients with osteogenic sarcomas are deceased, as is the one who had a fibrosarcoma. The patient with chondrosarcoma was well at two years. The patient with undifferentiated cell tumor (possible rhabdomyosarcoma) was dead. The multiple myeloma cases were not investigated.

Summary

1. Most benign bone tumors are treated adequately by local excision, although a few do require curettage and bone graft.

2. The most common primary malignant bone tumor is multiple myeloma.

3. Osteogenic sarcoma is the most frequently seen malignant bone tumor that is amenable to surgery, whereas Ewing's is the least common and has the poorest prognosis (tables 3 and 4).

Table 4. Survival Rates for Osteogenic Sarcoma.

Author	Cases	% 5-Year Survival
Lichtenstein[7]	25	8.0
Coley[8]	265	21.9
Geschickter & Copeland[9]	268	18.5
Coventry & Dahlin[1]	430	19.3

4. Fibrosarcoma and chondrosarcoma, with adequate surgery, have a much higher rate of survival at five years than does osteosarcoma or Ewing's tumor (tables 5, 6 and 7).

Table 5. Survival Rates for Ewing's Sarcoma.

Author	Cases	% 5-Year Survival
McCormack, Dockerty & Ghormley[10]	80	12.1
Lichtenstein & Jaffe[11]	17	0
Coley, Higinbotham & Bowden[12]	91	4.1
Tracey, Brindley & Murray[13]	8	0

Table 6. Survival Rates for Chondrosarcoma.

Author	Cases	% 5-Year Survival
O'Neal, Ackerman[14]	28	21.4
Tracey, Brindley & Murray[13]	7	42.9

Table 7. Survival Rates for Fibrosarcoma.

Author	Cases	% 5-Year Survival
Batts[15]	25	40.0
Tracey, Brindley & Murray[13]	5	33.0
Gilmer & MacEwen[16]	22	26.3

Conclusion

The frequent failure of amputation to achieve a long-term survival of the patient, to quote Pack, "is attributed to two factors, the inherent natural history of the cancer, and procrastination in performing the major amputation." Perhaps better results could have been achieved in these cases had more radical amputation been performed. •

312 W. Eighth Avenue (4).

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Death of a Colony

Job Harriman, noted lawyer, was an ardent socialist, and he tried to promote at least two communal colonies. One colony planted in Antelope Valley, in the barren country north of Los Angeles, failed for good reasons. Along in the early twenties, Mr. Harriman bought the Ramona Ranch in Riverside County. Job Harriman's Ramona Rancho communal experiment failed. It failed because something in man rebels, and finally dies, when his personality and individuality is taken from him, and he's merged into "the group." We have a right and a sacred obligation to be ourselves, to work out our own destiny, and to see the total result of our effort. Man wants to be able to stand back and say: "This I have done." The experiment failed for other reasons, any one of which would have doomed it from the start.

By Mr. Vollie Tripp in The Freeman, March 1958, Vol. 8, pp. 27 and 31.

The Quandary of Laryngopharyngeal Cancer

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SPOKANE, WASHINGTON

The Funk and Wagnalls Standard Dictionary defines *quandary* as a state of hesitation or perplexity; predicament. Certainly the patient with laryngopharyngeal cancer fits such a description perfectly. Our job, as doctors, is to banish the hesitation and perplexity and do everything possible to extract the patient from his predicament.

With the advent of newer surgical techniques, antibiotics and supplies of banked blood we are gradually increasing the range of curative surgery in laryngopharyngeal cancer. With a wider knowledge of these procedures and the resultant greater chance for cure, much of the hesitation and perplexity of the past should disappear. I fear that some of the hesitation and perplexity stemmed from attempts at rigid classification of the various lesions according to the point of origin. While such classifications may still serve a purpose, it was and still is impossible to determine the point of origin of the cancer in many cases.

If we consider for a minute the anatomy of the region under discussion we can see that many areas are closely approximated. To talk of cancer of the ariepiglottic fold, the epiglottis, the piriform recess, the ventricular band and of the post-cricoid region may at times call for very fine discrimination, and all too frequently by the time the patient presents himself for diagnosis more than one of these locations may be involved. Therefore, consideration of the individual case on the basis of surgical resectibility seems more logical and justified. At least some authors have begun to divide these cases into those in which,

1. The cancer can be resected *without* removal of the larynx. 2. The cancer can be resected *with* the removal of the larynx.

The following very brief description of cases illustrates some of the problems:

Case 1

When first seen in May 1948, this woman, age 58, complained of a lump in the throat that moved down when she swallowed and then gradually came up again. When she lay on her left side she did not feel the lump. The lump had been present for some period of time but had become worse in the month before examination.

Biopsy on May 4, 1948, from a large mass attached to the right post-cricoid region, was reported as squamous cell carcinoma.

Operation was performed on May 14, 1948 under a combination of local and Pentothal anesthesia. The larynx and a portion of the adjacent pharynx were removed. Because of the presence of a suspicious lesion on the posterior wall of the esophagus (Fig. 1), about ¾ of an inch of the esophagus was removed. (This area was later reported to be leukoplakia.) The posterior

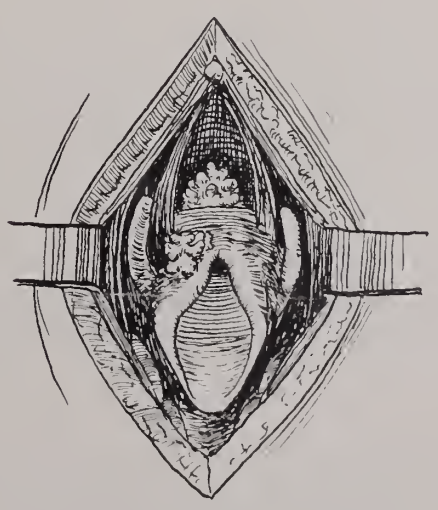


Fig. 1. Case 1—Post-cricoid and esophageal mass as seen at operation.

Read before annual meeting of Spokane Surgical Society, Spokane, Wash., April 12, 1958.

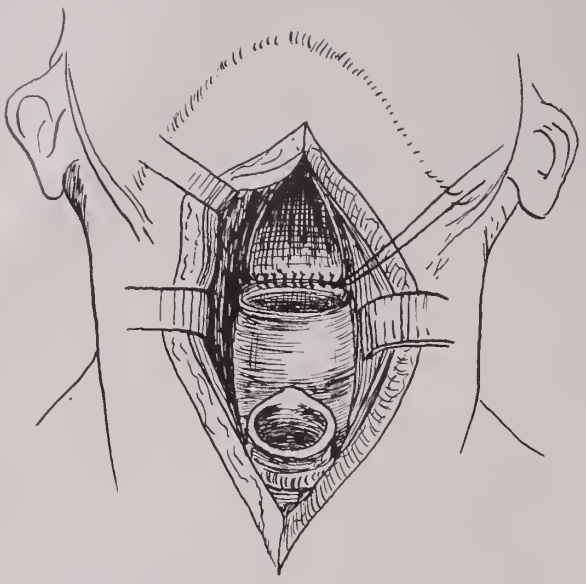


Fig. 2. Case 1—Approximation of pharyngeal mucosa and esophageal stump.

esophagus was mobilized and the edges approximated (Fig. 2). The wound was converted into an open pharyngostomy by approximation of the skin to the mucosal edges (Fig. 3). Approximately three weeks later the pharyngostomy was closed by a barndoor flap and a sliding flap to cover it (Fig. 4). In actual practice the amount of skin turned over was much less than here shown in the artist's sketch.

Five years later this patient was alive and well.

Case 2

In April, 1949, a man of 82 came to the office with a story of having been hoarse for a period of one year. He had used various types of gargles and throat troches, and had seen a couple of doctors for sore throat. On direct questioning he stated that there was some soreness but, as it had never prevented him from eating, he did not think it amounted to much.

Mirror examination disclosed a large mass on the posterior surface of the epiglottis, extending down the ariepiglottic fold (Fig. 5). The biopsy was reported as squamous cell carcinoma.

At the time of operation on April 12, 1949, the entire larynx with the epiglottis and a large portion of the lateral pharyngeal wall were removed. A pharyngostomy was formed in the upper lateral portion of the wound, the remainder of the wound being closed so as to form the smallest pharyngostomy possible without undue tension of the approximated tissues. Closure of the pharyngostomy was delayed because of a slough along the skin mucosal junction on one side. This was watched and when the area had completely epithelized, closure was effected in a manner similar to that employed in the previous case.

Four years and three months later the patient died. He had worked up until three months before he died. Death was ascribed to pneumonia, but the patient had a local recurrence at the time of his death. Question: "What is the life expectancy of an 82 year old patient?"

Case 3

A man, age 73, was first seen in October, 1952 at the request of his physician who had discovered an ulcerated area in the left piriform recess and fullness of the ariepiglottic fold (Fig. 6). The patient complained of difficulty in swallowing for "a couple of weeks." Extent of the lesion indicated that the process had been going on for some time prior to this, but probably had given no trouble until the ulceration had taken place. The biopsy was reported as squamous cell carcinoma.

On October 7, 1952, under a combination of local and Pentothal anesthesia a lateral pharyngotomy was performed. The exposure included removal of the left half of the hyoid and a portion of the left lateral shield of the thyroid cartilage. Upon opening the pharynx the mass could be well defined and it was removed with an adequate margin in all areas except in the area of the arytenoid cartilage where the pathologist said there might be some question. The arytnoid was therefore removed. Delayed closure was considered, but mobilization of the posterior pharyngeal wall allowed for primary closure of the mucosa and obliteration of the left piriform recess. The patient was referred for radiation therapy postoperatively.

The patient is alive and well today—over five years later.

Case 4

A man, age 45, when first seen in November 1952, stated he had been having some difficulty in swallowing for about 3 months. At first he only gagged a little and later there were certain foods that seemed to hurt when

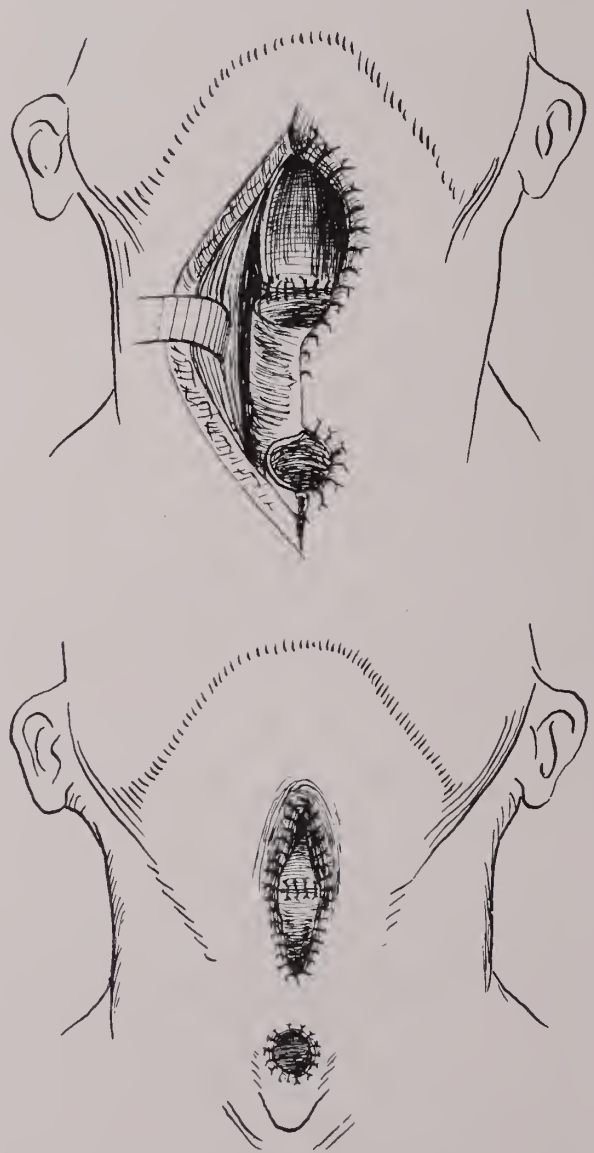


Fig. 3. Formation of the pharyngostomy.

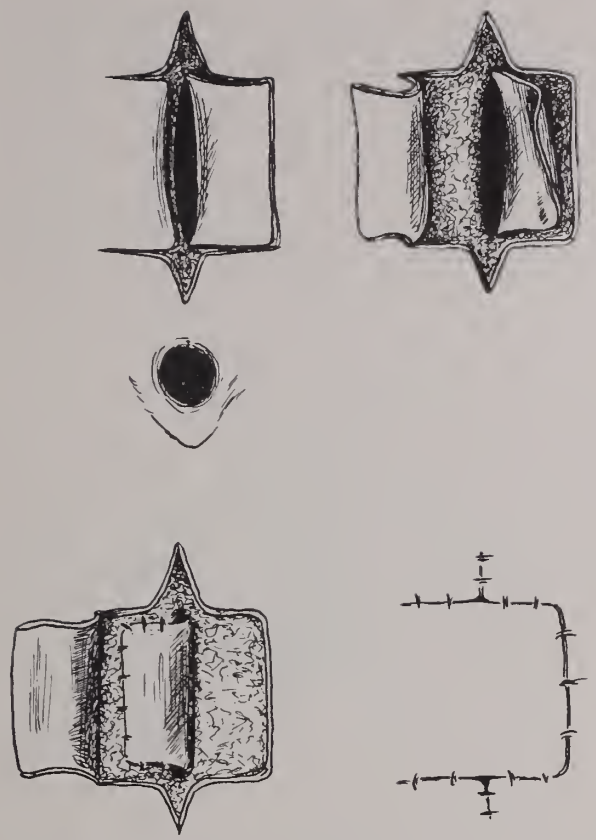


Fig. 4. Closure of the pharyngostomy.

they went down. For the three weeks immediately prior to his visit, the difficulty had rapidly become worse and at the time of examination he said he could not swallow water.

Mirror examination showed a large mass in the left piriform recess. X-rays showed a marked displacement of the larynx.

Direct laryngoscopy was performed and a large biopsy was obtained—actually the main portion of a pedunculated tumor was engaged in an electro-coagulating type snare and the dangling portion of the mass was removed. The entire mass proved to be squamous cell carcinoma.

The original plan was to do a lateral pharyngotomy coupled with radical neck dissection. Dissection proceeded without incident until the moment when it was necessary to determine the amount of lateral pharyngeal wall to be included in the dissection. Then it was found that invasion of the cricoid cartilage was so great as to preclude any attempt to save the larynx. It was necessary to remove the larynx. This complicated the closure, but initial closure was performed in such a way as to leave only a small lateral pharyngostomy. After a period of about three weeks the lateral pharyngostomy was closed using a combination of turned and sliding flaps.

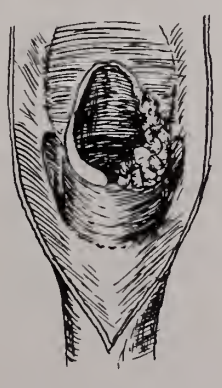


Fig. 5. Involvement found in case 2.

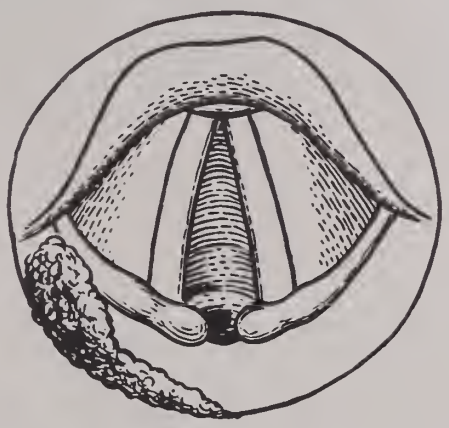


Fig. 6. Involvement found in case 3 (ulceration not shown).

Except for growing excessive hair within the reformed esophagus and the necessity for an occasional esophagoscopy and a "hair cut" the patient had no difficulty until November 1954. at which time he returned with a sore on the tongue (Fig. 7). He had tried various antibiotics for a period of three weeks, including "a couple of shots of penicillin," but had had no improvement. Biopsy showed the lesion to be squamous cell carcinoma. While it was on the same side as the original lesion in the laryngopharynx it was considered to be a primary lesion and one which might well be treated by radiation. He was referred for such treatment. In February, 1955, he returned say the sore was still present (Fig. 8). Biopsy again showed squamous cell carcinoma. Resection of the lesion was urged.

He declined—preferring to go to a "cancer clinic" in the mid-west. I am happy to say they convinced him that resection should be done. When last heard from in December, 1957, the patient was alive and working.

Case 5

A man, age 56, was first seen in October, 1953, with a history of having had a bad cold in March of the same year. The cold had been treated with penicillin. It was stated that he had a severe penicillin reaction from which it took about two months for him to recover. After his recovery he continued to have a "frog" in his throat. At the time of his visit the patient was still very hoarse and said he had a little discomfort on swallowing.

Mirror examination disclosed a granular, reddish mass that appeared to involve the right ventricular band and the vocal cord, extending from the anterior commissure back to and including the arytenoid (Fig. 9).

Two days later, direct laryngoscopy was performed and a biopsy specimen obtained. It was reported as squamous cell carcinoma.

The patient resisted the idea of a laryngectomy, but after a full explanation of the fact that he could learn to talk again or use one of the artificial larynxes, and a promise that we would do everything we could to save a portion of the larynx (if possible), he consented to surgery.

At the time of surgery it was considered possible to remove the entire mass by means of a hemilaryngectomy.

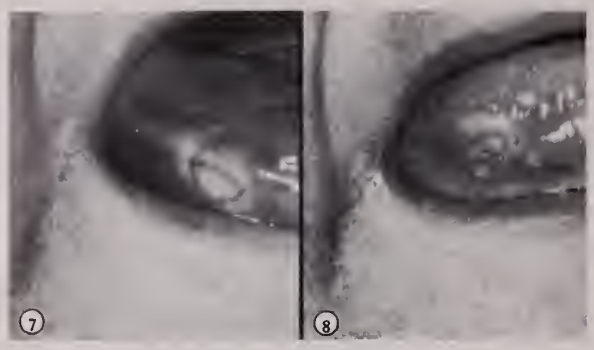


Fig. 7. Case 4—Tongue lesion before radiation therapy.
Fig. 8. Tongue after radiation therapy.

This necessitated rearrangement of the pharyngeal musculature and mucosa.

The postoperative course was attended by some difficulty in learning to swallow. However, at the end of nine days the patient was discharged from the hospital to home care.

The patient has had occasional bouts of allergic rhinitis but has experienced no difficulty from the reduced airway. He has found the alteration in his voice no disability. When last seen, less than one month ago, there was no evidence of recurrence and the patient is carrying on his daily chores as a farmer.

Discussion

Early diagnosis of cancer is still the key that will make the cure of cancer more certain. However, we need to spread the knowledge that prompt, aggressive surgical treatment, individualized for the particular case, offers a reasonable chance of cure. This program should result in:

1. Dimunition in the attitude of hopelessness frequently experienced by both doctors and patient in these cases. 2. Make unnecessary the inclusion of such statements as appeared in the monograph of The American Cancer Society, entitled Cancer of The Head and Neck: "In a large series of cases in one head and neck clinic the five-year cure rate following radiation therapy for pharyngeal wall cancer is about 6 per cent when all patients (in all stages of the disease) are included." As doctors, we must think in terms of possible cure first and consider palliative treatment only when all possible methods that might result in a cure have been carefully considered and eliminated.

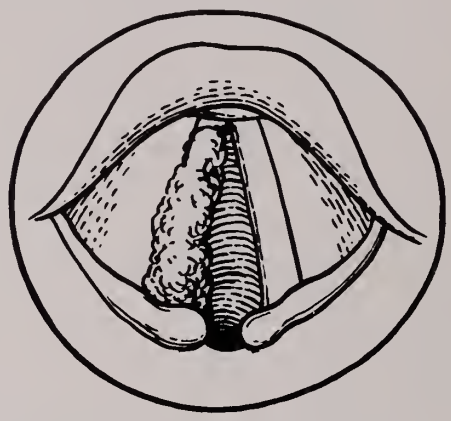


Fig. 9. Involvement found in case 5.

Summary

Surgical resectability of laryngopharyngeal tumors is not only feasible but, until newer and improved methods for the treatment of cancer come along, offers today the best chance of obtaining a cure in many of the cases of laryngopharyngeal cancer now being seen. A timid, hesitant, or hopeless attitude is to be condemned.•

215 Medical Center Bldg. (4).

Malignant Tumors of the Jejunum and Ileum

Everett B. Coulter, M.D.
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Malignant tumors of the small intestine are encountered infrequently in the practice of surgery. They constitute 3 per cent of all gastrointestinal malignancies, with carcinoma being twice as frequent as sarcoma. This study was undertaken to collect and analyze the malignancies found at surgery in Spokane hospitals during the past several years. The review is limited to tumors distal to the ligament of Treitz.

The symptoms of small bowel malignancy are usually vague. Intermittant cramp-like pain is an early symptom and as the disease progresses the pain becomes more constant and is sometimes accompanied by nausea and vomiting. Another early symptom is unexplained anemia. In later stages of the disease, one may have gross hemorrhage. Other symptoms listed in the literature are weakness, fatigability, diarrhea or constipation, anorexia, flatulence and loss of weight. Perforation is not common.

Physical findings of the disease are few. A palpable mass is usually not found until late in the disease, when the tumor has increased in size and the patient has lost weight. In many of these cases no diagnosis is made until the tumor occludes the lumen and the patient is explored for bowel obstruction. In many cases the tumor grows outward into the mesentary and does not obstruct the lumen of the bowel until late in the disease.

Roentgen examination offers a high ratio of pre-operative diagnoses of small bowel tumor when the radiologist's attention is directed specifically to the small bowel, but the diagnosis is often missed by the radiologist on routine gastrointestinal x-rays. Kirklin states that 90 per cent of small bowel lesions may be suspected on the basis of adequate x-ray examination.[1] Roentgen criteria for diagnosis include filling defect at site of the lesion, alteration or obliteration of the mucosa at site of the lesion, and distention of the bowel proximal to the lesion. Lesions of the lower ileum may be revealed by reflux through the ileocecal valve during a barium enema.

The pathology has been classified as carcinoma—which is divided into adenocarcinomas and carcinoid tumors—and sarcomas which are divided into leiomyosarcoma and lymphosarcoma.[2] The carcinoids are similar in appearance to carcinoids of the appendix. Prognosis is worse and the possibility of recurrence is more likely. Carcinoid tumors are very low grade, but in from 20 to 50 per cent of cases they metastasize to regional lymph nodes and the liver.

The diagnosis of small bowel malignancies is not easily made and one must consider, in differential diagnosis, Meckel's diverticulum, simple ulcer, tuberculosis, and regional enteritis. Peptic ulcer, cholecystitis, appendicitis, ulcerative colitis and malignancy of the colon or stomach—all present fairly characteristic clinical pictures and seldom should be confused with small bowel malignancies.

Sixteen cases of small bowel malignancy were collected. There were 8 cases of carcinoma and 8 cases of sarcoma as classified in table 1.

Table 1. Pathology.

	Cases
I. Carcinoma	
Adenocarcinoma	3
Carcinoid	4
Squamous cell carcinoma	1
Total	8
II. Sarcoma	
Sarcoma—unclassified	1
Lymphosarcoma	4
Leiomyosarcoma	3
Total	8

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The most prominent symptoms were nausea and vomiting, pain, diarrhea or constipation, and weakness. The frequency of these symptoms is shown in table 2.

Table 2. Symptoms in Sixteen Cases.

	Cases
Nausea and vomiting	9
Pain	7
Diarrhea and constipation	3
Weakness	2

The physical findings were not remarkable and were rather vague as recorded on these charts. There was a palpable mass in 3 of the 16 cases. There was some anemia in 10 of the 16 cases when first admitted to the hospital and anemia was severe (below 50 per cent) in 4 of these cases. X-ray examination was made of the gastrointestinal tract in 14 of the 16 cases. A positive x-ray diagnosis of tumor of the small bowel was made in 3 of 14 cases. X-rays were not done in 2 cases—one had a palpable tumor and the other was explored in the process of repairing a ventral hernia. A positive pre-operative diagnosis of small bowel tumor was made in 5 of the 16 cases. The pre-operative diagnosis in 11 cases was other than small bowel tumor as listed in table 3.

Table 3. Pre-Operative Diagnosis.

	Cases
Small bowel tumor	5
Bowel obstruction	4
Duodenal ulcer	3
Gallbladder disease	2
Small bowel fistula	1
Hiatus hernia	1
Total	16

All 16 cases were taken to surgery where the tumor was removed or a biopsy was done to establish the diagnosis. In the 8 cases of sarcoma no metastasis was noted. In 8 cases of carcinoma, spread of the tumor was noted in 5 cases—to the liver in 4 cases and to the lymph nodes in 1 case. There was spread in 3 of 4 cases of carcinoids, the spread being to the liver in each case. The operative procedure was a resection of the small bowel in 14 cases, enteroanastomosis in 1 case and biopsy only in 1 case.

The results with surgery in this collection of primary small bowel tumors leave something to be desired. In the first six months 8 patients died and 1 patient was living with metastasis. In the 6 to 12 month period 1 patient died and 1 patient was living and well. In the period of one to two years there was 1 death and 1 patient living with metastasis. There were 3 patients living more than two years after surgery; two of these were living and well six years following surgery and one patient was living with metastasis 8 years after surgery.

Table 4. Results of Surgery.

	Postoperative Period	
	Dead	Living
1-6 months	8	1
6-12 months	1	1
1-2 years	1	1
Over 2 years	0	3
Total	10	6

Conclusion

Sixteen cases of primary malignancy of the small bowel have been reviewed with symptoms and physical findings. X-rays were positive in only 3 of 14 cases and the diagnosis was made pre-operatively in only 5 of the 16 cases. The results of surgery are tabulated with only 3 patients alive two years postoperatively and one of these is living with liver metastasis. The diagnosis is difficult and, unfortunately, usually made late in small bowel malignancy. The surgical results are disappointing. Fortunately the disease is uncommon in surgical practice and does not often present a problem. •

205 Fernwell Bulding (1).

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Surgical Treatment of Oral Carcinoma

David E. Sullivan, M.D.
SPOKANE, WASHINGTON

Early in the present century, surgical excision of malignancies about the mouth and jaws was popularized by Butlin and other surgeons. However, mortality rates were high and many patients were left with gross deformities or impaired function. Consequently, surgical treatment of malignancies in this area fell into disuse and was largely replaced by radiation therapy. This trend was enhanced by various technical improvements in radiation technique, including the development and standardization of interstitial radon, improved intraoral cones, fractionating dosages, and more recently the development of super-voltage therapy machines, radiocobalt units and low-intensity radium needles. In more recent years the trend has again reversed itself. There is very definitely at present a revival of interest in surgical treatment. Improvements in endotracheal anesthesia, blood replacement, recovery wards, antibiotics, improved techniques and results of reconstruction have made the difference. All contribute to increased survival and improved function and appearance.

This situation is true of the country as a whole. It is not true of our own particular area. We are still behind the times in taking advantage of recent advances in surgical treatment of oral carcinoma. In this particular locality the vast majority of malignancies of the mouth and jaws are still being treated exclusively by radiation. Explanation for this lies in the fact that general practitioners, internists and dentists who first see most of these lesions have been schooled to refer them to radiologists for treatment. It is my strong conviction that members of the medical and dental professions should be made aware of the tremendous strides being made at present in curing oral cancer patients through surgery, and this without making them oral cripples or grotesque caricatures of human beings.

Radiation Therapy

It is only natural that radiologists stress the advantages and the more attractive features of radiation therapy of malignancies and have relatively little to say about the disadvantages. I should like to point out a few of these disadvantages.

Radiation is essentially a harmful, in fact destructive, form of energy. If sufficient dosage could be given, and limited sharply to the zone of the malignant tissue, we would all be happy to forget surgery and turn all malignancy patients over to the radiologists. Unfortunately this happy situation has not been achieved. Many tumors are notoriously radio-resistant, requiring huge dosage before the cells succumb to radiant energy. Other tumors, while radio-sensitive at first, rapidly develop radio-resistance during one or more courses of therapy. Despite constant efforts to reduce it to a minimum, damage to the surrounding normal tissues continues to be the major disadvantage of radiation therapy.

Most institutions report very low cure rates in advanced cases of oral carcinoma treated by radiation, particularly when the carcinoma has invaded bone. Most workers in this field agree that it is practically impossible to sterilize carcinoma in bone without causing osteoradionecrosis. Incidentally, x-ray evidence of invasion of bone by carcinoma is a late sign. Therefore a negative x-ray report is of little help in deciding whether or not bone has been invaded by nearby carcinoma.

Previous heavy radiation therapy, with its attendant destructive change in normal tissues, greatly complicates later surgical excision, to say nothing of reconstruction. Persistence or recurrence of malignancy following a full course of radiation should certainly signal the need for changing to surgical attack on the tumor, rather than stubbornly persisting with still more radiation.

We are beginning to hear of less common late complications of radiation therapy—e.g., radiation myelitis of the cervical spinal cord following intensive therapy of malignancies about the mouth and neck.

Despite all the foregoing no one can deny that radiation therapy does have a place in treatment of oral malignancies. It must be the method of choice for patients who refuse surgery or whose

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general condition does not permit surgery. It remains a valuable tool in attacking malignancies in the less accessible areas, such as the base of the tongue and the hypopharynx. In the form of palliation there is no question that it often can prolong life and make patients comfortable for many months even though they are incurable. The point I am making is that radiation should not be the initial treatment in all, or even the majority, of malignant lesions of the oral cavity.

Surgical Excision

Wider local resection is the one change that offers most in the way of increased cures of oral malignancies. This is borne out by increasing numbers of favorable reports from various teaching centers. Hayes Martin, of the Memorial Center in New York, attributes to increased use of surgery the fact that cure rate in cancer in the floor of the mouth has risen to 40 per cent from 20 per cent in 1935. Reporting at a recent meeting of the American Cancer Society on 379 cases of cancer of the floor of the mouth treated at Memorial Hospital between 1934 and 1950, Martin stated there has been a marked trend at that institution away from radiation toward surgical management with higher cure rates, reduced suffering, and savings in both time and money. John Blady of Temple University, and Milton T. Edgerton, at Johns Hopkins, state that overall chance of survival in cancer of the oral cavity has increased from 25 per cent 20 years ago to 50 per cent at the present time.

Where applicable, combined resection of the oral tumor in continuity with the lymphatic drainage area, taking a portion of the mandible if necessary, offers the prospect of improved cure rates. These cure rates are slowly but steadily rising, while at the same time morbidity is being reduced.

Very few will argue with the claim that surgery is the only treatment to be seriously considered in the management of metastases to cervical lymph nodes. The present trend appears to be away from prophylactic neck dissections and toward therapeutic neck dissections. However, Slaughter and others continue to present arguments which strongly support prophylactic neck dissections. Certainly if the neck must be entered to permit complete excision of the primary lesion, a neck dissection should be added to the procedure. Radical neck dissection should really be radical, proceeding along the lines advocated by George W. Crile, a method which you all know. While speaking of neck dissections, I might mention one example of recent extension of limits of operability. Metastatic nodes adherent to the common or internal carotid artery formerly made a case inoperable. This is no longer true due to development and introduction of blood vessel grafts.

Reconstruction

One of the more encouraging aspects of modern treatment of oral cancer is in the field of reconstruction. End result of surgical treatment of oral cancer no longer need be mutilation and crippling. The trend is toward primary reconstruction completed, or at least started, at the time of initial resection. Exposure is optimal at this time. Contractures, distortion of tissues and fistulas, can often be prevented completely, thus avoiding secondary procedures and prolonged hospitalization. Increased understanding and application of the techniques of immediate reconstruction will encourage the tumor surgeon to extend his local resection. At the same time, application of immediate reconstruction will reduce both functional impairment and visible deformity.

In the final analysis there is one rule that none of us should forget—namely, that the person who first provides definitive treatment to a victim of cancer has the golden opportunity to cure that patient. Never again will the chance of cure be so favorable, regardless of whether the treatment administered be surgical excision, radiation or cancer paste. Therefore it behooves the practitioner who provides initial treatment to be certain that he is utilizing the best form of treatment for the particular case at hand, and is administering it in the wisest, most thorough manner possible.

Summary

In the past, radiation therapy has been favored over surgical excision in the treatment of malignancies of the oral cavity. This situation still obtains in our own community. However, there is now a definite trend toward wide local resection of the oral tumor, combined with immediate reconstruction. This change is made possible by improved anesthetic techniques, blood replacement, improved postoperative care and antibiotics. Better results are continually being reported in the form of increased cure rates, reduced morbidity and minimal impairment of both function and appearance.•

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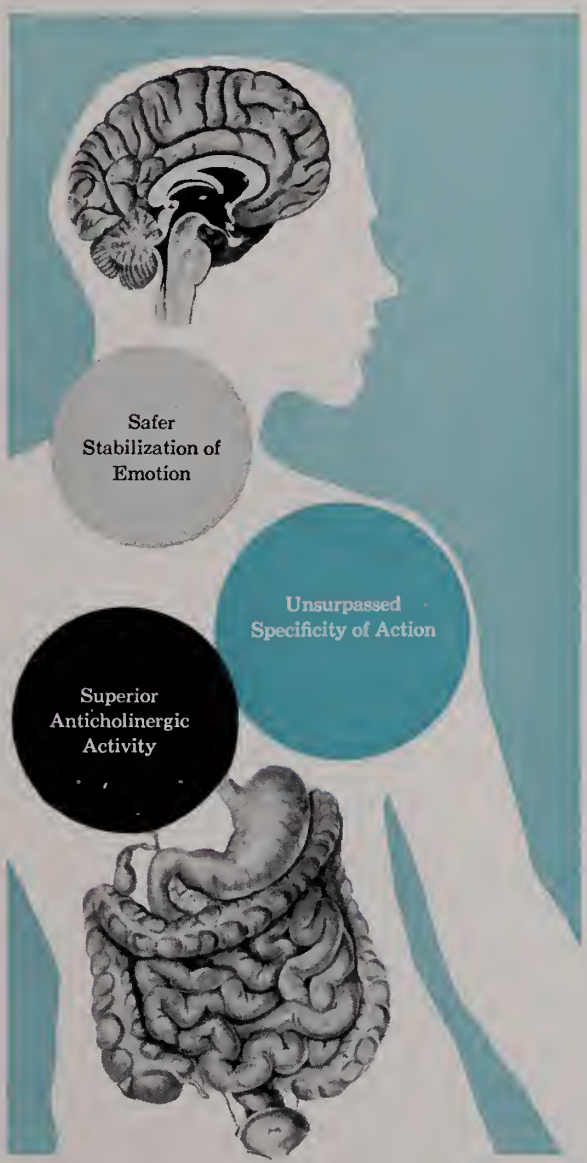
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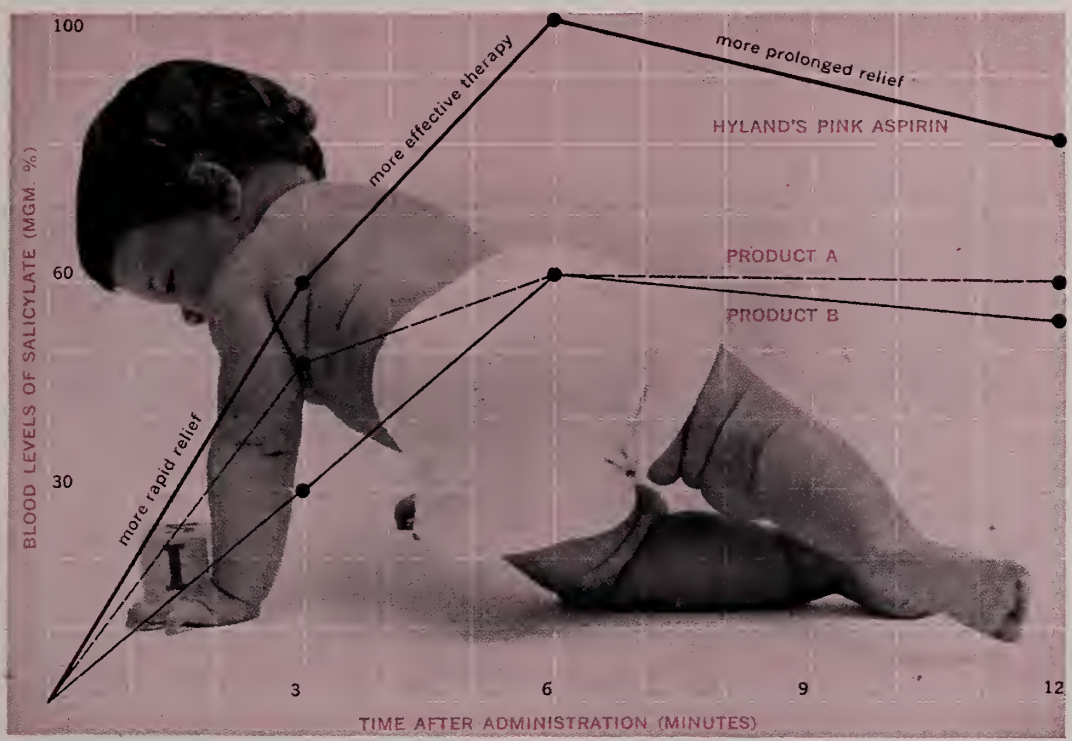
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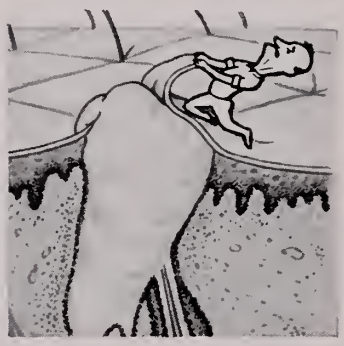


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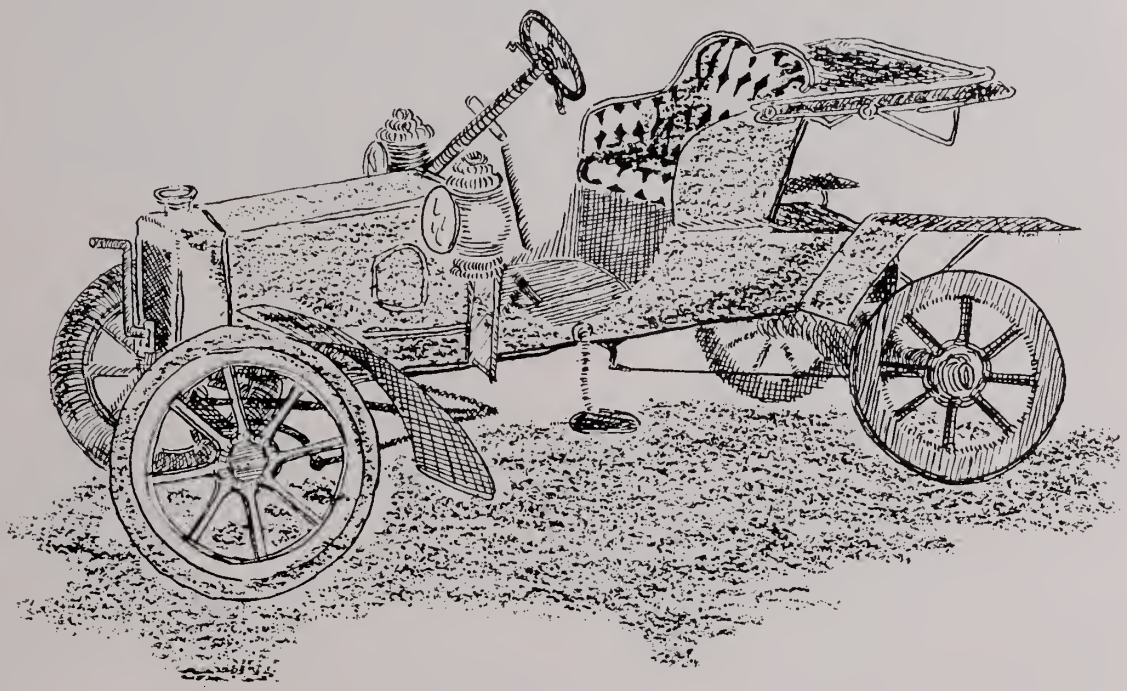


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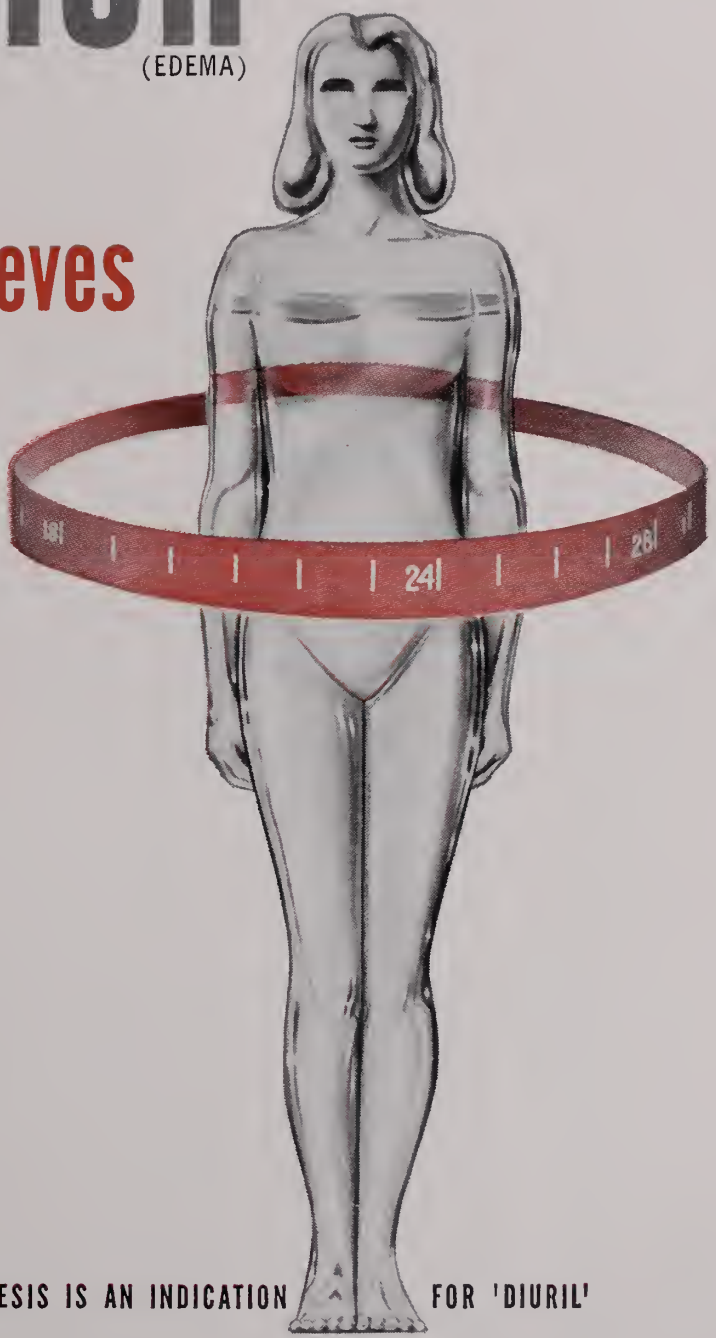
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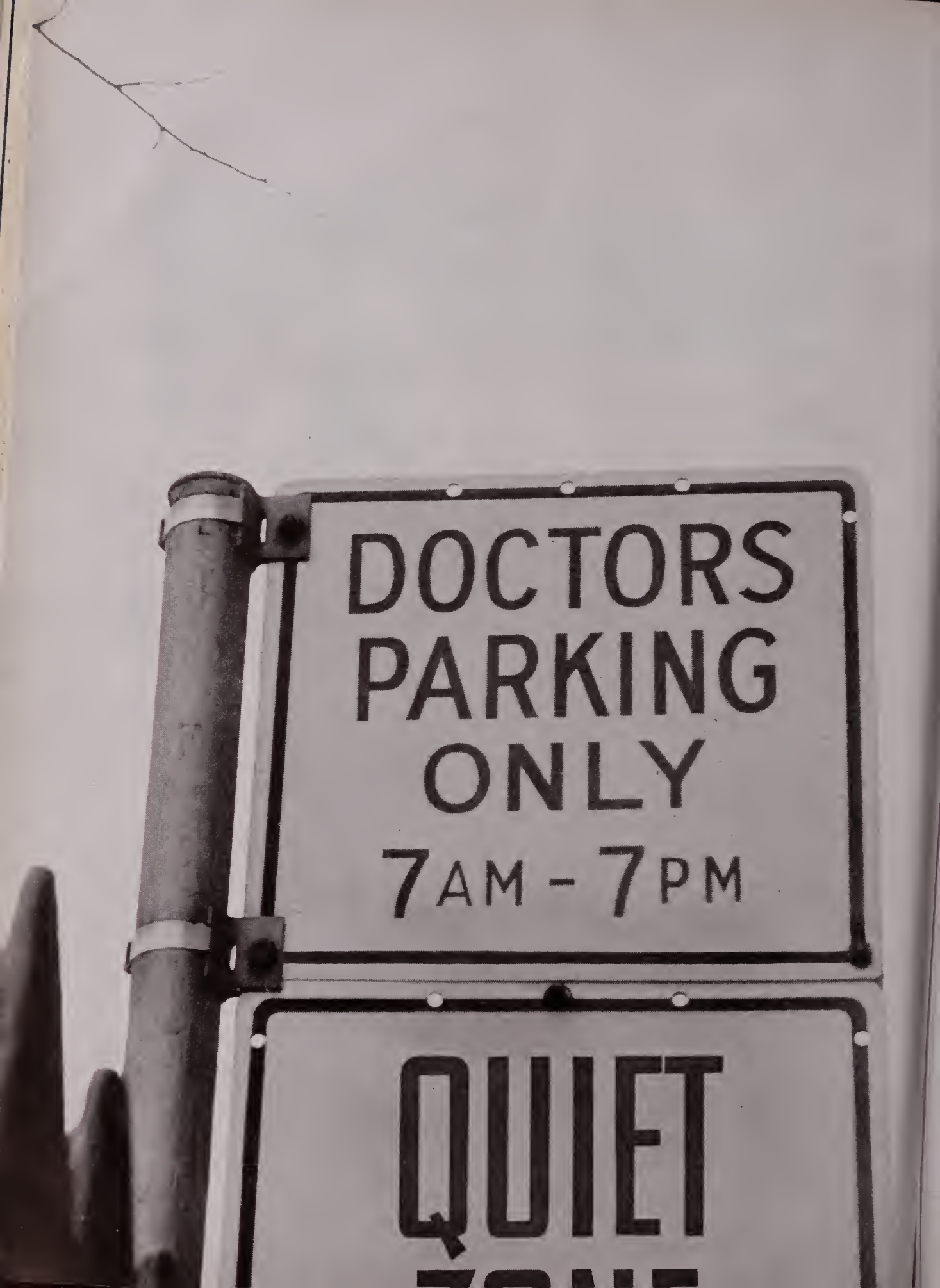
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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:395, *March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:504, *Dec. 1957.*

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For the first time in many years the Society's Annual Session will be held early enough in the year to precede the hunting season and late enough to assure that most youngsters will have returned to school after the summer recess.

The Wednesday immediately following Labor Day was selected by your Council as the permanent opening day for our Annual Sessions when the meeting is held in Portland. Thus, the dates for the 1958 Session will be Wednesday, Thursday, Friday and Saturday, September 3-4-5-6.

A great deal has been said in previous years about the expansive postgraduate educational opportunities and the importance of the House of Delegates business meetings held during our one big medical conference. Efforts to single out these two activities may have resulted in a tendency to under-emphasize the high caliber of the Annual Session's growing scientific and technical exhibit section.

Scientific and technicol exhibitors were somewhot disappointed last year by o rother small physician visitation in the exhibit areo. This year some 70 technical ond 15 scientific exhibitors will bring displays to the Session. Their contribution represents a great deal of personal time and expense, and the excellence of these exhibits is worthy of your enthusiastic support.

The scientific and technical exhibits are just as much a port of the post-graduate educational aspects of our meeting as the lectures and ponel discussions presented at the scientific assembly.

Your Committee on Annual Session in cooperation with the Advisory Committee to the Sommer Memorial Lecture Fund is putting the finishing touches on another outstonding scientific program. As in the past the lectures will be presented in the Commondery Room on the second floor of the Masonic Temple. I might add that arrongements are being made to provide ample time during recess to visit the exhibit hall.

New and older members alike are invited to acquaint themselves with the business end of our Society affairs by attending daily breakfast sessions of the House of Delegotes which will be held in the Florentine Room of the Columbia Athletic Club, just o short walk from the Masonic Temple. Breakfast will be served at 7 A.M. on Wednesdoy, Thursday and Friday. You are invited to join the delegotes for breakfast or to just hove a cup of coffee and remain during deliberations of the House.

Something new has been added to the Society's annual dinner-dance which had a very successful debut last year. During the evening there will be a surprise announcement of Oregon's "Doctor of the Year." This progrom was inaugurated in 1957 by the Committee on Public Relotions and reached its climax at the Mid-Yeor Meeting that yeor when Archie D. McMurdo of Heppner was the first recipient of the award. When Oregon's "Doctor of the Year" is introduced we will be paying our respects to one of those among us who, through lasting contributions to civic improvement, has earned admiration and respect of fellow citizens for himself ond the profession.

While you ore participoting in the Society's scientific and business progrom, your wife will find the activities planned by the Woman's Auxiliary at the Hotel Multnomah to be filled with special events that ore sure to make her visit a most enjoyable one.

.As President of our fine Society it is my very pleasant responsibility to extend a sincere invitotion to oll members and wives and to our colleagues in the sister states of Idaho and Washington and the territory of Alaska to join us in Portlond on September 3-4-5-6 for the 84th Annual Session of the Oregon State Medical Society.

Vern N. Miller

President

Max. H. Parrott, M.D., Portland
Secretary-Treasurer, OSMS



Blair J. Henningsgaard, M.D., Astoria
Speaker, House of Delegates, OSMS



A. O. Pitman, M.D., Hillsboro
Delegate to AMA



E. G. Chuinard, M.D., Portland
Delegate to AMA



Raymond M. McKeown, M.D., Coos Bay
Trustee, AMA





ERNST AUGUST SOMMER, M.D., Founder



EUGENE W. ROCKEY, M.D., Portland
Chairmon, Advisory Committee



JOEL W. BAKER, M.D., Seattle
Member, Advisory Committee

Sommer Memorial Lecture Series



ARTHUR L. ROGERS, M.D., Portland
Member, Advisory Committee



HOWARD C. STEARNS, M.D.,
Portland
Member, Advisory Committee



MR. LEROY B. STAVER, Portland
Trust Officer
U.S. National Bank

For the twenty-eighth time since 1941, Northwest physicians will have the appartunity af attending the outstanding lectures made possible through a fund left in perpetual endawment by the late Ernst August Sommer af Portland. Since 1948, twa series af the Sammer Memarial Lectures have been presented each year—the spring series which is given at the time of the University af Oregan Medical Schoal Alumni Associatian meeting and the fall series which is held in canjunction with the annual sessian of the State Society. Under the able guidance af the chairman and members of the Advisory Cammittee, pictured above, the current series has again been planned with thaughtful care to camply with Dr. Sommer's desire that discussions af problems arising in the general practice af medicine and surgery be presented. As envisianed by Dr. Sommer, the lecture series which bears his name does indeed serve mankind in advancing medical science.

GUEST SPEAKERS . . .

J. EDWIN WOOD, JR., M.D.

Charlottesville, Virginia
Professor of Medicine
University of Virginia Department of Medicine



1. Clinical Significance of Factors Influencing the Excretions of Salt and Water
2. Serum Glutamix Oxalo-Acetic Transaminase and Lactic Dehydrogenase Levels and Their Clinical Significance
3. Diet and Coronary Heart Disease

MICHAEL L. MASON, M.D.

Chicago, Illinois
Professor of Surgery
Northwestern University Medical School



1. Tumors of the Hand
2. Management of Burns
3. Primary and Delayed Tendon Repair of the Hand

RALPH V. PLATOU, M.D.

New Orleans, Louisiana
Head, Department of Pediatrics
Tulane University of Louisiana School of Medicine



1. Prognosis for Meningitis in Infants
2. From the Mouth of Babes and Sucklings
3. Typical Facies and Postures

Annual Session Highlights



The Scientific Program at our Annual Session has become one of the Pacific Northwest's leading postgraduate education opportunities. Each year, in addition to our own members, many physicians from other states take advantage of our Session to visit Oregon. They come not only from our sister Western states but as well from numerous mid-west and eastern states. The Sommer Memorial Fund lecturers for this Session are of unusual excellence and will bring to us and our guests the newest advances in medicine and surgery.

The Exhibit will again include outstanding displays by firms serving our profession. On exhibit will be the latest drugs, instruments, modalities, books, office equipment and supplies and many other items vital to our practice. Equally noteworthy will be the scientific demonstrations of our own members. Do not miss this important part of the Session program.

The House of Delegates convenes each day of the Session beginning with breakfast at 7:00 A.M. in the Florentine Room of the Columbia Athletic Club. The House is the Society's major policy-forming body and all members of the Society are invited to attend and observe its deliberations on committee reports and many other matters of concern to the profession.

The Annual Banquet and Dance has become the social highlight of our Annual Sessions. The program is arranged so that nearly the entire evening can be devoted to the "light fantastic." So that our members and their guests may participate in the installation of our new President, this short but dignified ceremony will be conducted immediately following the dinner. The Banquet and Dance is scheduled for Thursday, September 4. Social Hour will be at 6:00 P.M. Dinner at 7—Installation of President at 8—and dancing at 8:30.

The Annual Oregon Medical Golf Tournament is to be held on Saturday morning, September 6, at 7:30, on the course of the Portland Golf Club. Be sure to get your handicap established and certified by your "pro." You will be asked for it with your entry blank.

Scientific Exhibits.....

1. **Eye Plastic Surgery**
   Merrill J. Reeh, M.D., and
   Paul H Thornfeldt, M.D., Portland
2. **Quinoline Compounds in Rheumatic Diseases**
   Robert E. Rinehart, M.D., Wheeler
3. **Discography—Its Usefulness in the Clarification of Clinical Syndromes**
   Norman M. Harris, M.D., Donald deF. Bauer, M.D. and Anthony J. Smith, M.D., Coos Bay
4. **Congenital Anomalies of the Hand**
   H. Minor Nichols, M.D., Portland
5. **Services of Your Blood Center**
   Bernard Pirofsky, M.D., Medical Director, Pacific Northwest Regional Blood Center, Portland
6. **Can You Diagnose This Case?**
   Oregon Radiological Society and Department of Radiology, University of Oregon Medical School. Portland
7. **Induced Cardiac Arrest as an Aid to Contrast Cardiovascular Visualization**
   Charles T. Dotter, M.D., Professor and Head, and Louis H. Frische, M.D., Associate Professor, Department of Radiology, UOMS, Portland
8. **Intramuscular Iron-Dextran Therapy**
   Arthur J. Seaman, M.D., Associate Professor of Medicine and Associate Director, Division of Experimental Medicine, Department of Medicine, UOMS, Portland
9. **Ruptured Aneurysms of the Circle of Willis**
   George M. Austin, M.D., Professor of Surgery and Head, Division of Neurosurgery, Department of Surgery, UOMS, Portland
10. **Effects of Prophylaxis on Rheumatic Heart Disease**
    Harold M. Erickson, M.D., State Health Officer and Mr. Joseph L. Taylor, Director, Health Education Section, Oregon State Board of Health, Portland

Technical Exhibits.....



Abbott Laboratories
Aloe Company
American Ferment Company, Inc.
Ayerst Laboratories
Baker Laboratories, Inc.
Burroughs Wellcome & Company
Business Equipment Company
Carnation Milk
Ciba Pharmaceutical Products, Inc.
Coca-Cola Company
Corvek Medical Equipment Co.
Darwin Laboratories
Desitin Chemical Company
Doho Chemical Laboratories
Dome Chemicals, Inc.
Dictaphone Corporation
Dierks Medical Building
Eaton Laboratories
Endo Laboratories
Equitable Savings & Loan Assn.
Executone Systems Company
Geigy Pharmaceuticals
General Electric Company—X-Ray Dept.
Gerber Products Company
Great Books of the Western World
Haack Laboratories, Inc.
Hall Laboratories, Don
H. J. Heinz Company
Holland-Rantos Company, Inc.
William Howard Company
Insurance Company of Oregon
Jacuzzi Bros., Inc.
Keleket X-Ray Corp. of Oregon
Knoll Pharmaceutical Company
Lederle Laboratories
Eli Lilly & Company
Lloyd Brothers, Inc.
The S. E. Massengill Company
Mead Johnson & Company
Medical Service Specialties
Merck Sharp & Dohme
The Wm. S. Merrell Company
Milex-Fertilex Company
Ortho Pharmaceutical Corp.
Parke Davis & Company
Pepsi Cola
Physicians & Hospital Supply Co.
Pownall, Taylor and Hays
A. H. Robins Company, Inc.
Ruson Laboratories
Roche Laboratories
Sandoz Pharmaceuticals
W. B. Saunders Company
Schering Corporation
G. D. Searle & Company
Shaw Surgical
E. R. Squibb & Sons
Smith, Kline & French Laboratories
Surgical Sales, Inc.
The Upjohn Company
U.S. Vitamin Corporation
Yorktown Products Corporation

Woman's Auxiliary to Oregon State Medical Society



Mrs. Merle Pennington, Sherwood
President, Woman's Auxiliary to OSMS

Business will be mixed with pleasure at the Annual Fall Planning Meeting of the Woman's Auxiliary ta the Oregon State Medical Society.

As in the past, the meeting will run cancurrently with the Annual Session of the State Society, which this year is being held in Portland on Wednesday, Thursday and Friday, September 3-4-5.

The Fall Planning Sessian offers the only oppartunity during each year when officers, cammittee chairmen and members from all compenent auxiliaries can exchange ideas and coordinate majar activities. Two activities expected ta be spatlighted during the sessian are Health Careers Harizons and support af the American Medical Education Foundatian.

Health Careers Horizons is designed to stimulate interest among qualified high school students to seek careers in medicine and ancillary fields such as x-ray, nursing and medical assistant.

Last year the Auxiliary made a major contribution ta the American Medical Education Faundation through the sale of Christmas cards. The Faundation, sponsored by the American Medical Association, receives cantributions to medical educatian from physicians throughout the United States and distributes the money "without strings" to approved medical schools. Donations may be made through AMEF to specific schools.

In addition ta the business meetings there will be a number of social events, and time for sightseeing and shapping.

The Background and Significance of Medical Ethics

HERMAN A. DICKEL, M.D.*
PORTLAND, OREGON

In arising to greet the new members of the Oregon State Medical Society and to comment on the background and the significance of medical ethics, one is at first inclined to feel a bit like apologizing for bringing up the subject of medical ethics at a time when an individual is but being initiated into this organization.



HERMAN A. DICKEL, M.D.

However, those of us who are in daily contact with the complexities and problems of organized medicine realize that it is most important, not only to pause to review the significance of medical ethics, but to spend a moment to look into the background that has led to the development of that code considered the very core of the medical profession—the truly last group who have significantly resisted every effort to reduce in status the codes we have lived by for almost longer than any major religious code.

In a recent issue of the *World Medical Association Newsletter* there was this following quotation: "A tough and unyielding barrier has been the pride in profession of a limited group who have made independence of government in their economic activities a political religion reminiscent of that of our Victorian grandfathers.

"This is an intended indictment of our profession expressed in an article by Professor J. Douglas Brown on The American Philosophy of Social Insurance and published in a recent issue of the *Bulletin of the International Social Security Association.*

"We think this is one of the most eloquent compliments ever tendered our profession. How rare today is such a thing as 'pride in profession!' How rare, too, is 'independence of government!' That our pride in our profession and our determination to be independent of government should be a fault in anyone's view is a sad commentary on the degree to which the world-wide drive to socialism has corrupted our sense of values.

"Let us keep up this 'tough and unyielding barrier'—by strengthening our county, state and national medical societies . . ."

With this sort of theme—a most thought-provoking note, I thought—I lead you on to comment on the background of medical ethics.

Characteristics of a Profession

Not too long ago it was necessary for me to speak before a group of nurses on What Constitutes a Profession and it was with pleasure that I read a quoted review by Professor Freeman Butts of Columbia University who has listed the following as characteristic of a profession.

1. Organization—full and complete organization within the group that completely serves all of the purposes of the group.
2. Mastery of a common body of knowledge and skills, and the mastery of which supervised study, learning and the practice have been attained on the university level.
3. Joint determination by the profession itself and the public it serves of the qualifications of those who may enter the profession.
4. Official recognition by the government.
5. Economic and social status sufficient to attract and hold persons with high intellectual and personal qualifications.
6. Effective working relationships with the group.
7. A Code of professional ethics.

It is noteworthy that the code that any profession is dedicated to follow is largely the one factor that determines the profession's significant status.

History of Medical Ethics

Some 2,100 years before the Birth of Christ, Hammurabi wrote out what is historically considered the original set of medical ethics. The then proud and revered leader of Babylonia verbalized for the first time the concept of the responsibility of the physician toward penal and civil acts. Those of you who have had an opportunity of reading these writings know the significance they have played through the years.

Hippocrates, three centuries before Christ, in less than 50 words established the foundation for all systems of ethics to follow and for all this intervening time no man and no writings of man have added to or subtracted from these tenets—

> **A physician should be an upright man, instructed in the art of healing, modest, sober, patient, prompt to do his whole duty without anxiety, pious without going so far as superstition, conducting himself with propriety in his profession and in the actions of his life.**

This has stood for 22 centuries!

In the 19th century medicine became of age, and in 1803, Thomas Percival had published his Principles of Medical Ethics, a most significant addition to the old field insofar as it interpreted the practice of medicine on a more modern basis than had been done previously.

In 1847 at the first real American Medical Association meeting, although this meeting had as its real objective medical education and the regulation of medical

(Continued on page 928)

Read at Second Annual New Member Institute, Oregon State Medical Society, Portland, Oregon, April 19, 1958.
*President-Elect, Oregon State Medical Society.

(Continued from page 927)

education for the practice of medicine, the founding fathers took time to write out the Code of Medical Ethics. It has been added to and subtracted from, at times, but nonetheless has remained for almost 110 years the foundation for the practice of medicine in the United States.

This first document had three chapters, namely:

a. Outlining the duties of physicians to their patients and of the obligations of patients to their physicians,
b. Outlining the duties of physicians to each other and to the profession at large, and
c. Outlining the duties of the profession to the public and the obligations of the public to the profession.

Actually, there was little change for a number of years, but in 1903 there was the elimination of the exclusive dogma clause which related to the voluntary professional association with cultists. Not until 1912 was this clause re-established. Then in 1934, one noted for the first time the inclusion of contract practice as it is used today in its present meaning. This was the first time that there was a real mentioning of some free choice of physicians, and not until 1937 was free choice of physicians actually defined.

Then, in 1947, there was revision of the language by which physicians will be compensated and in 1956, due to the pressures and the changes of society, and our economic and professional environment, the stage was set for the short abbreviated version of the Code of Ethics as adopted by the House of Delegates of the American Medical Association in June 1957.

AMA Principles of Medical Ethics

The Principles of Medical Ethics as adopted in June 1957 read as follows:

Preamble: These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

Section 1—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

Section 2—Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

Section 3—A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

Section 4—The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

Section 5—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

Section 6—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

Section 7—In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

Section 8—A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

Section 9—A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

Section 10—The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community.

It would seem that a word or two of explanation might be noted in regard to these several sections.

a. Section 1 is an outline of the aims of the whole field of medicine.

b. Section 2 is a demand for the continual striving for improvement of the physician and an urgent plea for the constant ready availability of all advancements that will be made by members of the medical profession.

c. Section 3 is devoted to pointing out the need for medicine to separate itself now and for always from the cultist.

d. Section 4 tries to delineate the obligations of the profession to the public and it points out the need for the physician's character, indicating in this respect the importance for the doctor to watch not only his own behavior pattern but that of his colleagues so that as an individual he is obligated to protect not only himself but his profession. This implies not only the ethical obligations of the doctor, but the importance for him to use some measure of etiquette.

e. Section 5 concerns the definition as to the freedom that the doctor has in handling his cases and the manner in which he shall be regulated in emergencies and in other situations involving his patients.

f. Section 6 defines and limits the practice of medicine on a corporate basis and explains to the physician how he shall handle his employment arrangements.

(Continued on page 930)

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(Continued from page 928)

It has been noted "that this is not perhaps too definitive but it is left for the State Medical Societies to define local conditions."

g. Section 7 is an explanation of those economic relationships that the physician will have, whereas

h. Section 8 takes into account the need for the physician to always have and exercise sound moral judgment and to share difficult cases with his colleagues.

i. Section 9 explains the attitude toward the confidential information that the physician is constantly handling, and

j. The last section implies that the physician is required to have a balance of conscience and a proper investment of emotion in civic capital.

Opinions of AMA Judicial Council Available

I would point out, to those of you who are unacquainted with the AMA, that there exists a Judicial Council which recently published a compilation of opinions, pronouncements, and interpretations of the Judicial Council of the AMA covering a period of over 50 years. This has been revised, abstracted and annotated in 1957 and a copy is in the hands of every secretary of every component medical society in the United States. These opinions and reports cover every conceivable situation, experience and problem that have or could arise in a physician's practice. It seems important to emphasize that every physician as he enters the practice of medicine, or becomes a member of a county or state medical society, should take enough of his time to ask the secretary of his organization for a copy of these opinions and reports so that he can spend a few hours some evening in reviewing some of the experience and the solutions of problems that other physicians and other organizations have had through the years.

International Code of Medical Ethics

I have stated that medical ethics has existed for over 4,000 years in some form or another and I have commented that there has recently been a revision in the Medical Ethics of the American Medical Association. But this country is not the only one that might think of revising the codes by which we practice. There is now a World Medical Association and they, too, early focused on the need for a Universal Code of Ethics. I would like at this time to read for you the International Code of Medical Ethics adopted by the Third General Assembly of the World Medical Association in London, England, October 1949.

International Code of Medical Ethics

DUTIES OF DOCTORS IN GENERAL

A DOCTOR must always maintain the highest standards of professional conduct.

A DOCTOR must not allow himself to be influenced merely by motives of profit.

The following practices are deemed unethical:

(a) Any self advertisement except such as is expressly authorized by the national code of medical ethics.

(b) Taking part in any plan of medical care in which the doctor does not have professional independence.

(c) To receive any money in connection with services rendered to a patient other than the acceptance of a proper professional fee, or to pay any money in the same circumstances without the knowledge of the patient.

Under no circumstances is a doctor permitted to do anything that would weaken the physical or mental resistance of a human being, except from strictly therapuetic or prophylactic indications imposed in the interest of the patient.

A DOCTOR is advised to use great caution in publishing discoveries. The same applies to methods of treatment whose value is not recognized by the profession. When a doctor is called upon to give evidence or a certificate he should only state that which he can verify.

DUTIES OF DOCTORS TO THE SICK

A DOCTOR must always bear in mind the importance of preserving human life from the time of conception until death.

A DOCTOR owes to his patient complete loyalty and all the resources of his science. Whenever an examination or treatment is beyond his capacity he should summon another doctor who has the necessary ability.

A DOCTOR owes his patient absolute secrecy on all which has been confided to him or which he knows because of the confidence entrusted to him.

A DOCTOR must give the necessary treatment in emergency, unless he is assured that it can and will be given by others.

DUTIES OF DOCTORS TO EACH OTHER

A DOCTOR ought to behave to his colleagues as he would have them behave to him.

A DOCTOR must not entice patients from his colleagues.

A DOCTOR must observe the principles of "The Declaration of Geneva" approved by the World Medical Association.

DECLARATION OF GENEVA

Adopted by the General Assembly of the World Medical Association at Geneva, Switzerland, September, 1948

At the time of being admitted as a member of the medical profession:—

I solemnly pledge myself to consecrate my life to the service of humanity.

I will give to my teachers the respect and gratitude which is their due;

I will practice my profession with conscience and dignity;

The health of my patient will be my first consideration;

I will respect the secrets which are confided to me;

I will maintain by all the means in my power, the honor and the noble traditions of the medical profession;

My colleagues will be my brothers;

I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient;

I will maintain the utmost respect for human life, from the time of conception. Even under threat, I will not use my medical knowledge contrary to the laws of humanity.

I make these promises solemnly, freely and upon my honor.

I never read the latter declaration without feeling added incentive to go forth and practice my profession a little bit better than I did a moment before. I sin-

cerely hope that the reading of these solemn words will in some way or another impart to you the very serious efforts your State Medical Society would make in being sure that you, new members of our organization, will follow to your best efforts the words noted above.

Conclusion

In concluding, I would like to read a part of the editorial page from the *Journal of the American Medical Association* of July 27, 1957:

> Despite the efforts devoted to drafting this 1957 edition of ethics of the American Medical Association and despite the full discussion of its intent and purposes, neither its length nor its language will insure observance of the principles it enunciates. At best the written principle of ethics is but the suggestion of the inexpressible. It is the effort to express truths which are known in conscience. As one's conscience is developed one knows these truths and as one follows a right conscience he acts ethically.
>
> It is not, then, the printed document which makes a doctor ethical; rather it is his observance of the dictates of his own enlightened conscience. The document which attempts to express ethical principles is only an aid, a symbol which may help keep ideals uppermost in mind and practice. The 1957 edition of the Principles, because it is concise; because it is limited to basic, ethical concepts; and because it is capable of being displayed prominently and with pride, possesses merit as a document which can aid the doctor maintain the tradition of his profession: To do good, selflessly, as he strives to improve the health of mankind.

The officers, the Council, the present membership of the Oregon State Medical Society, in greeting each of you new members, at the same time urges each of you to hold faithfully to and to follow these ethics, and to help those of us already members to improve our own use of these basic structures in our medical profession. •

Postgraduate Meeting To Coincide with Oregon-Oklahoma Football Game

Oregon physicians planning to attend the Oregon-Oklahoma football game Oct. 4, 1958, will have an opportunity the same weekend to take advantage of a postgraduate meeting at the University of Oklahoma Medical Center. Postgraduate sessions are scheduled for October 3 and 4.

Program of the two-day meeting is as follows: Friday, October 3—9:00 A.M. to 5:00 P.M., A combined scientific session; 7:30 P.M., Dinner at the Faculty Club for registrants and their ladies. Saturday, October 4—8.30 A.M. to 10:30 A.M., Choice of five pre-game breakfast round table conferences: Surgery, medicine, pediatrics, obstetrics, gynecology.

Those wishing additional information and final program are asked to write the Office of Postgraduate Education, University of Oklahoma Medical Center, 801 N.E. Thirteenth Street, Oklahoma City 4, Oklahoma. Tickets to the football game may be obtained by writing to University of Oklahoma Athletic Ticket Office, Norman, Oklahoma.

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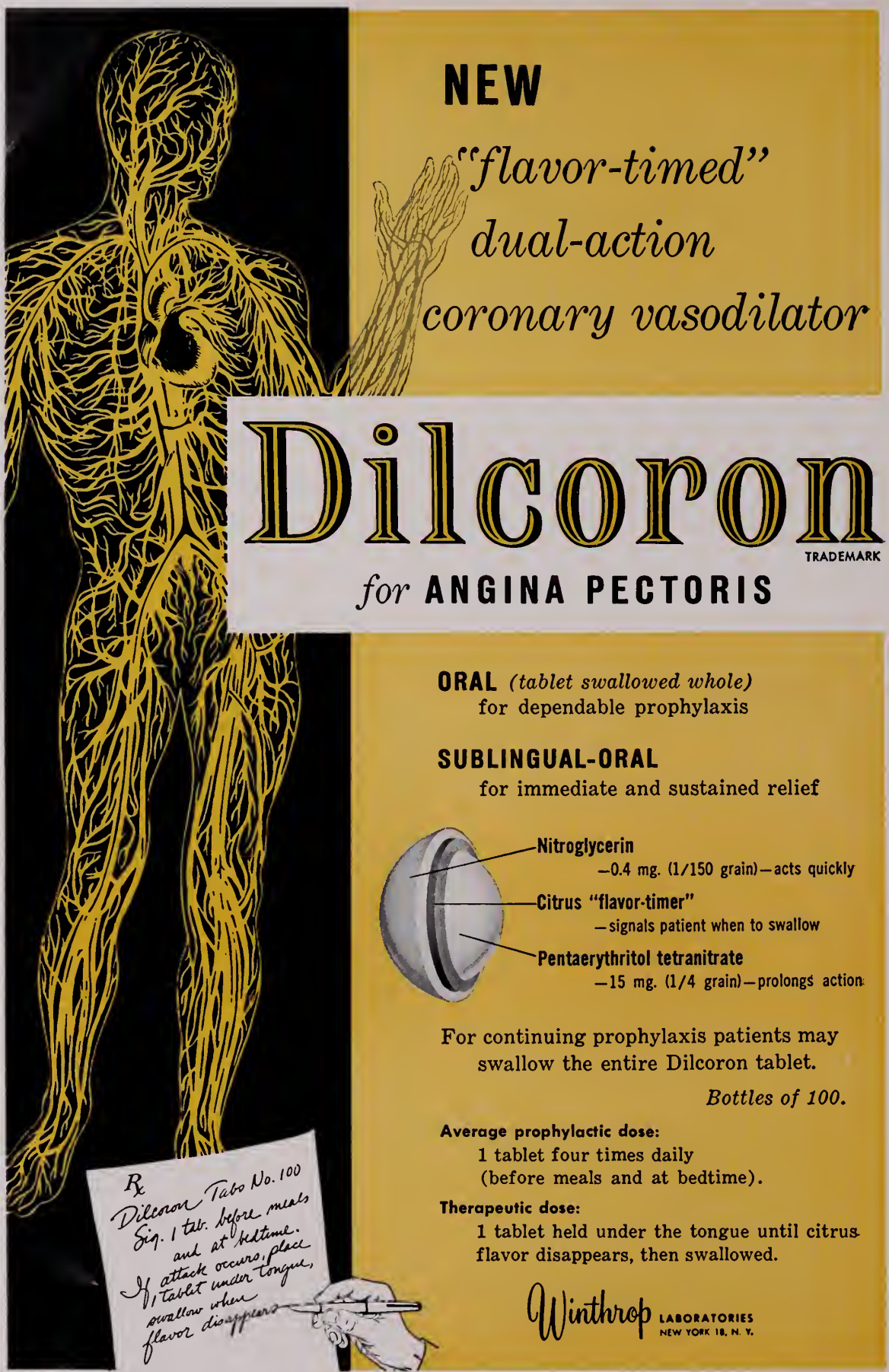
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September 14-17, 1958

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Register Now For Refresher Courses

At Your WSMA Convention in Spokane, September 14-17

Registration is now open for the 11 refresher courses to be conducted at the Davenport Hotel in Spokane, September 16 and 17 during the 1958 convention of the Washington State Medical Association.

The refresher courses deal with topics of current interest to both general practitioner and specialist, and the physician-instructors are outstanding in their fields. The courses and instructors are listed in the scientific program published in this section, which also shows the papers and speakers scheduled for the general scientific sessions. The complete convention program covering the dates of September 14-17, inclusive, will be published in the August issue of NORTHWEST MEDICINE.

Refresher courses are scheduled from 9:00 to 10:30 a.m. on Tuesday, September 16, and from 8:30 to 10:00 a.m. on Wednesday, September 17. A physician may attend a course each day or only one course. Each course will consist of an hour's lecture, plus a half hour of questions and answers. Like the rest of the scientific program at the convention, the courses will be granted Category II credit by the Washington Academy of General Practice.

Since attendance will be limited, advance reservations are required for the refresher courses. Physicians may register by filling out and returning the application blank below. There is no charge. On receipt of the application, a reservation card will be sent for each course selected. Applicants are urged to list first, second and third choices for each day of their attendance. Although every attempt will be made to give first choices to all registrants, physicians are urged to register immediately, since reservations will be made on the basis of "first come, first served."

Clip this coupon and mail today:

1958 Convention, Washington State Medical Association, Spokane, Sept. 14-17

REGISTRATION FOR REFRESHER COURSES

List three choices for each day you will attend

TUESDAY, SEPT. 16 *(Instructor's Name)*	WEDNESDAY, SEPT. 17 *(Instructor's Name)*
1st Choice	1st Choice .....
2nd Choice	2nd Choice .....
3rd Choice	3rd Choice .....
Your Name _____	RETURN THIS BLANK TO:
Office address _____	Washington State Medical Association 1309 Seventh Avenue
City _____	Seattle (1), Washington

69th Annual Convention, Washington State Medical Association

Davenport Hotel, Spokane, September 14-17, 1958

SCIENTIFIC PROGRAM

(Complete convention program, including business sessions, luncheons, non-scientific addresses, and social and sports events will be published in the August issue of NORTHWEST MEDICINE.*)*

MONDAY, SEPTEMBER 15

9:00-12 noon } Scientific Films;
2:00-5:00 p.m. } Titles to be announced

TUESDAY, SEPTEMBER 16

9:00-10:30 a.m. REFRESHER COURSES *(Five Conducted Simultaneously)*

The Present Status of Staphylococcic Infections in the Newborn
Instructor: ROBERT A. ALDRICH, M.D., *Seattle*
Professor and Executive Officer, Department of Pediatrics, University of Washington School of Medicine

Hemorrhoids and Fissures
Instructor: WALTER A. FANSLER, M.D., *Minneapolis, Minn.*
Clinical Professor and Director, Division of Proctology, University of Minnesota Medical School

Care of the Injured Hand
Instructor: R. A. MURRAY, M.D., *Temple, Texas*
Chief, Department of Orthopedic Surgery, Scott and White Clinic

The Technique and Interpretation of Renal Angiography
Instructor: EUGENE F. POUTASSE, M.D., *Cleveland, Ohio*
Staff Urologist, Cleveland Clinic Foundation and Frank E. Bunts Institute

The Anatomy of Abdominal Pain
Instructor: LUCIAN A. SMITH, M.D., *Rochester, Minn.*
Associate Professor of Medicine and Head, Section on Internal Medicine, Mayo Clinic

2:00-5:00 p.m. GENERAL SCIENTIFIC SESSION

2:00 Changing Concepts in the Treatment of Polyps of the Colon and Rectum
WALTER A. FANSLER, M.D.

2:30 Surgical Treatment of Diverticulitis
CARL P. SCHLICKE, M.D., *Spokane, and* ARCH LOGAN, M.D., *Spokane*

2:55 Diagnosis and Surgical Management of Congenital Lesions of the Esophagus
RALPH BERG, JR., M.D., *Spokane*

3:20-3:40 Recess to Visit Exhibits

3:40 Osteomyelitis — Diagnosis, Treatment and Complications
R. A. MURRAY, M.D.

4:10 Fractures of the Ankle
LOUIS H. EDMUNDS, M.D., *Seattle*

4:35 Plastic Surgical Problems in General Practice
DAVID E. SULLIVAN, M.D., *Spokane*

WEDNESDAY, SEPTEMBER 17

8:30-10:00 a.m. REFRESHER COURSES *(Six Conducted Simultaneously)*

The Osteochondroses and Normal Variation in the Growing Skeleton

Instructor: JOHN CAFFEY, M.D., *New York City*
Professor of Radiology, Columbia University

Perirectal Abscess and Fistula
Instructor: WALTER A. FANSLER, M.D.

Differentiation and Management of Peripheral Vascular Disease
Instructor: WILLIAM S. MIDDLETON, M.D., *Washington, D. C.*
Chief Medical Director, Veterans Administration

Fractures of the Upper Extremity
Instructor: R. A. MURRAY, M.D.

Difficult Surgical Problems of the Upper Urinary Tract
Instructor: EUGENE F. POUTASSE, M.D.

Application of Pain Patterns to the Diagnosis of Abdominal Pain

Instructor: LUCIAN A. SMITH, M.D.

GENERAL SCIENTIFIC

10:30-12 noon } SESSIONS
2:00-5:30 p.m. }

10:30 Radiographic Signs of Mongoloidism During Early Infancy
JOHN CAFFEY, M.D.

11:00 The Meaning of Jaundice in the Infant and Young Child
ROBERT A. ALDRICH, M.D.

11:30 Gastrodialysis in the Management of Acute Renal Insufficiency
JAMES M. BURNELL, M.D., *Seattle*

2:00 Aneurysm of the Aorta
WILLIAM S. MIDDLETON, M.D.

2:30 Surgical Aspects of Peripheral Vascular Disease
R. N. KLEAVELAND, M.D., *Spokane*

2:55 Remote Pain as an Aid in the Diagnosis of Abdominal Disease
LUCIAN A. SMITH, M.D.

3:25-3:40 Recess to Visit Exhibits

3:40 Clinical Experience with Chlorpropamide (P-607) In the Treatment of Diabetes Mellitus
ROBERT H. BARNES, M.D., *Seattle*

4:05 Renal Artery Disease in Hypertension
EUGENE F. POUTASSE, M.D.

4:35 Results of Desensitization to Insect Bites
ROBERT A. STIER, M.D., *Spokane*

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Reports from Investigators

In medical student volunteers, 'Deaner' produced increased daytime energy and attentiveness at lectures, sounder sleep (with a reduction in the hours of sleep needed), better ability to concentrate, decreased apprehensiveness prior to and during examinations, a more affable mood and outspoken personality.

1. Murphree, H.B.Jr.; Jenney, E.H., and Pfeiffer, C.C.: Presented before Assoc. for Research in Nervous and Mental Disease, New York, Dec. 12-14, 1957. To be published.

In Exhaustion and Depression—In a study of over 100 patients suffering from various psychiatric disorders, especially exhaustion and mild depression, the clinical effect of 'Deaner' was to increase energy and to relieve depression in over 70%.

2. Lemere, F., and Lasater, J.H.: Am. J. Psychiat. *114*:655 (Jan.) 1958.

In Learning Problems—Some of the children with reading problems and other learning defects have improved markedly during their treatment with 'Deaner'.

3. Oettinger, L.: To be published.

Dosage: Initially, 1 tablet (25 mg.) daily in the morning. Maintenance dose, 1 to 3 tablets (25 to 75 mg.) for adults, ½ to 3 tablets daily for children. Full benefits may require two weeks or more of therapy.

U. W. Offers Postgraduate Course on Advances in Cancer Diagnosis

A postgraduate course, designed to acquaint the practitioner with the latest developments in the diagnosis of cancer, will be offered at the University of Washington School of Medicine, August 7, 8, and 9 (immediately preceding the Gold Cup Races during Seattle's Seafair Days). Outstanding leaders in the various diagnostic specialties will join the University of Washington faculty in the presentation of this course. Merrill C. Sosman, professor of radiology emeritus, Harvard Medical School; George E. Moore, director of the Roswell Park Memorial Institute, Buffalo; Eleanor M. Humphreys, professor of surgical pathology, University of Chicago, and Henry M. Lemon, associate professor of medicine, Boston University, will be among the guest faculty.

The program will begin Thursday afternoon, August 7, at 1:00 p.m., with a discussion of Office Diagnosis of Cancer. Friday morning, Diagnosis of Gastrointestinal Cancer will be covered and during the afternoon the topic will be Diagnosis of Gynecologic Cancer and Cancer of the Breast. Final session on Saturday morning will deal with Diagnosis of Cancer of the Lung. The program will end at 12 noon Saturday.

No tuition will be charged and attendance will be unlimited. For further information, contact the Division of Postgraduate Medical Education at the University of Washington School of Medicine.

U.W. Film To Have International Showing

The scientific film, Ovulation and Egg Transport in the Rat, made by Richard Blandau, assistant dean at the University of Washington School of Medicine, has been selected by the State Department for showing at the Venice Film Festival. It is the third teaching film which Dr. Blandau has made in cooperation with the motion picture unit of the department of medical illustration at the University, and will be entered in the scientific division of the international film show.

Seattle Physician on Cancer Council

Charles A. Evans, professor and executive officer of the department of microbiology at the University of Washington, has been named to a four year term on the National Advisory Cancer Council. His appointment becomes effective October 1, 1958.

Locations

Fred C. Klopfenstein has moved to Spokane from Pasco where he had practiced since 1944. Dr. Klopfenstein, a general practitioner, has joined the medical staff at Eastern State Hospital. He received his medical degree in 1928 from the College of Medical Evangelists, Loma Linda, Calif. Before locating in Pasco, Dr. Klopfenstein had practiced in San Diego and Boulder, Colo., part of the time at both places as a staff member at sanitariums.

Wesley F. Springer has opened offices in Seattle for general practice. Dr. Springer was graduated from the University of Nebraska Medical School in 1954 and took his internship at the University of Nebraska Hospital. He served his residency in general practice rotating at Permente Hospital, Vancouver, Washington, from 1955-56, and then served in the medical corps of the U.S. Air Force from 1956 to 1958.

Arthur W. Freidinger has entered into association with Ralph M. Stolzheise of Seattle for the practice of psychiatry. Dr. Freidinger received his medical education at Western Reserve University School of Medicine from which he was graduated in 1943. He formerly practiced in Westport, Connecticut.

Obituary

Dr. Matthew M. Patton, 79, Spokane pathologist for the last 49 years, died May 10 in a Spokane hospital from an appaerntly self-administered dose of poison. Dr. Patton received his medical degree in 1907 from Northwestern University Medical School. Before locating in Spokane in 1909, he was a general practitioner in Montana.

Subjects Announced for Heart Symposia

William E. Watts of Seattle, chairman of the Washington State Heart Association's series of symposia for county medical societies, has announced the topics for next year's series: Atherosclerosis—Present Concepts, Prevention and Treatment; Heart Surgery—Who Is Eligible, and Hypertension—Newer Drugs. Requests from medical societies for one or all of the sessions should be made to the State Heart Association at 3121 Arcade Building, Seattle.

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RECEPTION HONORS MRS. UNDERWOOD—Clark County Medical Society gave a reception in Vancouver on Sunday, May 25, for Mrs. E. Arthur Underwood of Vancouver, president-elect of the Woman's Auxiliary to the American Medical Association. Mrs. Underwood took office in June at the San Francisco meeting of the AMA and the Auxiliary. Pictured above are some of the 200 guests who attended the reception. From left: Fig. 1. Gerald Turley, president, Clark County Medical Society; Mrs. Dennis H. Seacat, president, Woman's Auxiliary to Clark County Medical Society; Dennis H. Seacat, Vancouver; Mrs. Gerald Turley, Ridgefield; Mrs. Underwood; E. Arthur Underwood, Vancouver; and Miriam Luten, Portland, Oregon. Fig. 2. J. C. Woodward, Vancouver; Milo T. Harris, Spokane, president of Washington State Medical Association; and Mr. Ralph Neill, Seattle, executive secretary of WSMA. Fig. 3. I. C. Munger, Jr., Mrs. Eugene G. Cushing, Herbert Leiser and Mrs. Henry Wiswall, all of Vancouver. Fig. 4. Judge Frank Foley, Mrs. Frank Foley, Mrs. John Harrison and John Harrison, all of Vancouver.

First Appointee to Endowed Chair Named

First appointee to the new Robert L. King Chair of Cardiovascular Research at the University of Washington is Bernard M. Wagner, assistant professor of pathology at the University of Pennsylvania Medical School. Dr. Wagner, whose research interests are in rheumatic fever and other inflammatory diseases of the heart, will assume his duties August 1.

The Chair makes $15,000 per year available to the University on a permanent basis to employ a research scientist interested in heart disease and to help support his work. It is the first endowed chair to be established at the University and honors Robert L. King of Seattle, a past president of the Washington State and American Heart Associations.



Mrs. Donald Lynch, president of Woman's Auxiliary to Washington State Medical Association, attended the reception May 25 in Vancouver honoring Mrs. E. Arthur Underwood, at right, who took office last month as president of the Woman's Auxiliary to the American Medical Association.

Heart Association To Sponsor Bulletin

The American Heart Association in cooperation with the National Heart Institute of the U. S. Public Health Service and the American Academy of General Practice will sponsor the *Heart Bulletin,* bi-monthly journal on heart disease directed primarily to family physicians. The *Heart Bulletin* is the fourth publication made available to the medical profession through the Heart Association. The others are: *Modern Concepts of Cardiovascular Disease, Circulation* and *Circulation Research.*

Washington physicians may obtain the *Bulletin* through subscriptions purchased from the Washington State Medical Association or the State Heart Association.

Seattle Physician Named to Health Council

H. Stanley Bennett, professor and executive officer of the department of anatomy at the University of Washington School of Medicine, has been appointed to a four-year term on the National Advisory Health Council. As a member of the 12-man council, which is composed of six leaders from the field of science and six from education and public affairs, Dr. Bennett will advise the U. S. Surgeon General in awarding training grants.

John Jesseph in Athens, Greece, To Help Install Heart-Lung Machine

John Jesseph, University of Washington School of Medicine Alumni Association president, interrupted his surgical residency to leave May 15 for Athens, Greece. While in Athens, Dr. Jesseph will assist surgeons at the University of Athens in installing the first heart-lung machine in Greece.

Dr. Jesseph was invited to Greece by two Athens surgeons he met last fall while attending the convention of the International Society of Surgery at Mexico City. In addition to Dr. Jesseph's report on experiences with the University of Washington's heart-lung, Henry Harkins and Lloyd Nyhus of the Medical School staff also presented papers at the meeting.

Expenses for the two-month trip were provided by the University of Athens and by Greek-American societies interested in helping their medical school. Dr. and Mrs. Jesseph will spend a third month in sightseeing and in visiting various European clinical centers before returning to the United States.

State Heart Association Names Officers

Newly-elected officers of Washington State Heart Association are Dean K. Crystal, Seattle surgeon, president, and Joseph H. Low of Yakima, vice-president. Elections were held the first week of May in Seattle during a meeting at which the Association's tenth anniversary was observed.

Guide Available for the Cardiac Farmer

Physicians planning a safe work load for the cardiac farmer will find much helpful information in the guide, A Safe Work Load for Farmers with Heart Disease, which is now available. In addition to classifying many common jobs on the farm according to the amounts of energy they demand, the guide also contains a nine-point check list for guidance of the patient. Copies of the guide may be obtained from the Washington State Heart Association, 3121 Arcade Building, Seattle.

Grant Given Cardiology Division at U.W.

A grant of $9,000 from the General Life Company of America has been given to the Division of Cardiology in the University of Washington School of Medicine. The funds will be used by the Division in awarding fellowships to help young physicians start careers in academic medicine or research.

Mr. Willis L. Campbell, president of General American Corporation, the parent company, announced the grant which is in honor of the late Mr. Hawthorne K. Dent, company founder, who died of heart disease.

Joint Medical-Bar Meeting Held

Annual joint meeting of the Walla Walla Valley Medical Society, Dental Association and Walla Walla County Bar Association was held May 8 in Walla Walla. Guest speaker was George Stevens, dean of the University of Washington Law School.

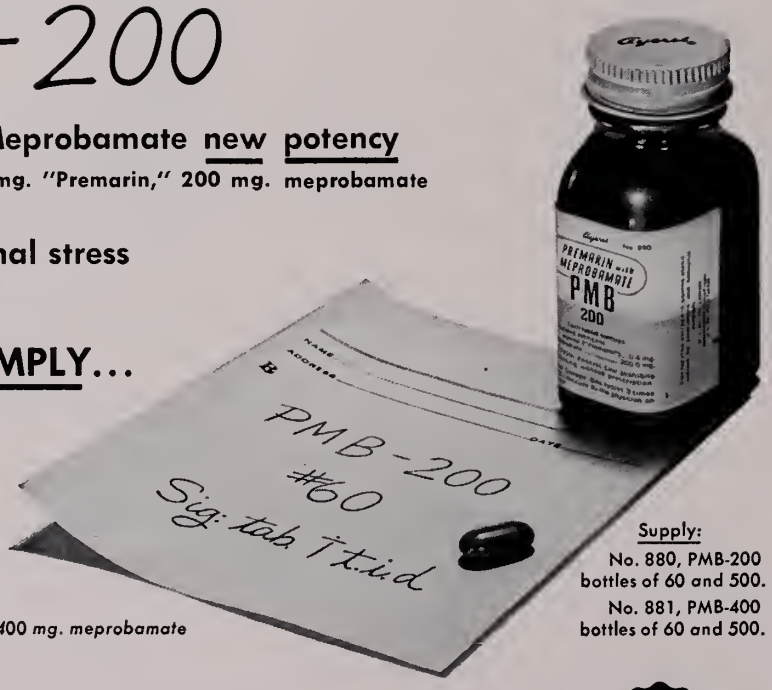
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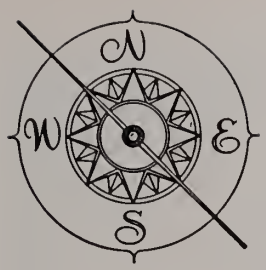
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Theobramine . . . . . 4 grs.
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Theabromine . . . . . 4 grs.
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BOOKS

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—Francis Bacon

RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Anomalies of Infants and Children. By D. McCullagh Mayer, D.D.S., M.D., F.A.C.S., F.I.C.S., Associate Professor of Plastic Surgery, New York Medical College; Associate Attending Plastic Surgeon and Head of Plastic Surgery Service, Flower and Fifth Avenue Hospitals, New York; and Wilson A. Swanker, M.D., F.A.C.S., F.I.C.S., Professor of Plastic and Aesthetic Surgery, Ankara University, Turkey; Medical Director of Admiral Bristol Hospital, Istanbul; Associate, New York Medical College. 454 pp. Illustrated. Price $12.00. McGraw-Hill Book Co., Inc., The Blakiston Division, New York. 1958.

Carbon Dioxide Therapy: A Neurophysiological Treatment of Nervous Disorders. Ed. 2. Edited by L. J. Meduna, M.D., Professor of Psychiatry, University of Illinois School of Medicine, Chicago, Ill. 541 pp. Price $14.50. Charles C Thomas, Springfield, Ill. 1958.

A Textbook of Psychology. By Donald Olding Hebb, Professor and Chairman, Department of Psychology, McGill University. 276 pp. 78 figures. Price $4.50. W. B. Saunders Company, Philadelphia and London. 1958.

Rehabilitation of the Cardiovascular Patient. By Paul Dudley White, M.D., Massachusetts General Hospital, Boston; Howard A. Rusk, M.D., Professor and Chairman, Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York; Philip R. Lee, M.D., Department of Internal Medicine, Palo Alto Clinic, Palo Alto, Calif.; and Bryan Williams, M.D., Clinical Instructor in Medicine, The University of Texas, Southwestern Medical School, Dallas. 176 pp. Illustrated. Price $7.00. McGraw-Hill Book Company, Inc., The Blakiston Division, New York. 1958.

Dietary Prevention and Treatment of Heart Disease. By John W. Gofman, Ph.D., M.D., Donner Laboratory, University of California, Berkeley; Alex V. Nichols, Ph.D., Donner Laboratory, University of California, Berkeley; and E. Virginia Dobbin, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. 256 pp. Price $3.95. G. P. Putnam's Sons, New York. 1958.

Anomalies of Intestinal Rotation and Fixation (Including Mesentericoparietal Hernias). By Roberto L. Estrada, B.Sc., M.D., C.M., D. Surg. (McGill), F.R.C.S. (C), F.A.C.S., Demonstrator in Surgery, McGill University, Montreal, Canada; Assistant Surgeon, The Montreal General Hospital, Montreal; Assistant Surgeon, Reddy Memorial Hospital, Westmount. 161 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Ill. 1958.

Memoirs of a Golden Age. By Maurice Davidson. 140 pp. Illustrated. Price $3.75. Basil Blackwell, Oxford. 1958. Distributed by Charles C Thomas, Springfield, Ill.

Clinical Obstetrics and Gynecology.—A Quarterly Book Series—Vol. I, No. 1 (March 1958): Medical Problems in Pregnancy, edited by Curtis J. Lund, M.D.; and Management of Endocrine Problems, edited by Allan C. Barnes, M.D. 288 pp. Illustrated. $18.00 per year. Paul B. Hoeber, Inc., New York. 1958.

A Search for Man's Sanity—Selected Letters of Trigant Burrow with Biographical Notes. Prepared by the Editorial Committee of the Lifwynn Foundation, William E. Galt, Chairman. Foreword by Sir Herbert Read. 615 pp. Price $8.75. Oxford University Press, New York. 1958.

(Continued on page 943)

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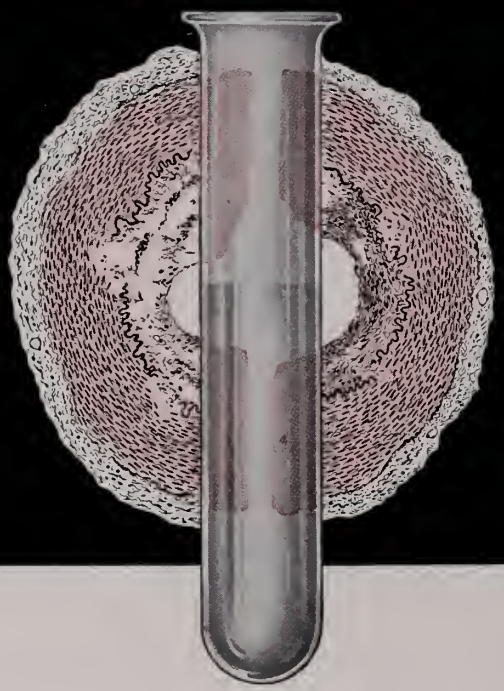
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IN DIABETES

Blood Cholesterol Regulation Is Desirable



Frequently, diabetes mellitus is associated with excessive coronary atherosclerosis and heart disease. It is also well recognized that vascular disease manifests itself at an earlier age and progresses more rapidly in the diabetic . . . especially the diabetic female. The early onset and severe degree of atherosclerosis may be due to faulty lipid metabolism, with a concomitant elevation in blood cholesterol levels. Kinsell[1] reports that even in diabetics with extensive vascular disease it is possible to produce normal cholesterol levels with an essential fatty acid emulsion.

The consensus of opinion today is that elevated cholesterol levels should be reduced or prevented. This can be done very well by the addition of adequate amounts of linoleic acid and vitamin B_6 to the diet. In scores of diabetic patients, with extensive vascular disease, diets high in linoleic acid resulted in improvement.[2,3] Vitamin B_6 apparently is necessary to convert linoleic acid into the primary essential fatty acid, arachidonic acid. Thus the body is dependent on an intake of both linoleic acid and vitamin B_6 for normal cholesterol levels.[4,5]

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References 1-5 supplied on request.

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(Continued from page 941)

Diagnostic Medical Parasitology. By Edward K. Markell, Ph.D., M.D., Assistant Professor of Infectious Diseases, Division of Parasitology and Tropic Diseases, Department of Infectious Diseases, School of Medicine, University of California, Los Angeles; and Mariette Voge, M.A., Ph.D., Assistant Professor of Infectious Diseases, Division of Parasitology and Tropic Diseases, Department of Infectious Diseases, School of Medicine, University of California, Los Angeles. 276 pp. 115 figures, 5 in color. Price $7.00. W. B. Saunders Co., Philadelphia and London. 1958.

Handbook of Treatment of Acute Poisoning. Ed. 2. By E. H. Bensley, M.B.E., B.A., M.D., F.A.C.P., Director, Department of Metabolism and Toxicology, The Montreal General Hospital; Associate Professor of Medicine and Lecturer in Toxicology, McGill University; and G. E. Joron, B.A., M.D., C.M., F.A.C.P., Assistant Physician, Department of Metabolism and Toxicology and Department of Medicine, The Montreal General Hospital; Demonstrator in Medicine, McGill University; Assistant Physician, St. Mary's Hospital, Montreal. 212 pp. Price $4.00. E. & S. Livingstone Ltd., Edinburgh & London. 1958. Distributed by Williams & Wilkins Co., Baltimore.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlomert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

PARAPSYCHOLOGY: FRONTIER SCIENCE OF THE MIND—A Survey of the Field, the Methods, and the Facts of ESP and PK Research. By J. B. Rhine and J. G. Pratt, Parapsychology Laboratory, Duke University, Durham, North Carolina. 220 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

Mind action unexplainable by known scientific law immediately intrigues the intelligent reader. Perception and action beyond known sensory law have been evident through all ages and either revered or persecuted. Parapsychology is the collective label for the new science dealing with psi capacity as shown through ESP—extra sensory perception—and PK—psychokinesis. In this book on the Frontier Science of the Mind, the authors write interestingly, define terms, describe methods and summarize facts. For the casual reader they help clear the fog of present day fact and fiction, and for the professional they provide the basic techniques used in testing psi phenomena. They invite exploration and fact recognition. They also offer testing methods and statistical tables as a working manual for the research minded. The expression of psi in telepathy, clairvoyance, precognition, and psychokinesis is shown in relation to the fields of biology, physiology, medicine, education, philosophy and religion. One particularly challenging fact is the clear evidence that psi missing below the chance expectation is as common as psi hitting above chance levels. For the curious as well as for the informed reader, this work on parapsychology takes one to the source of present day understanding.

Ralph M. Stolzheise, M.D.

(Continued on page 944)

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(Continued from page 943)

ROENTGENOLOGY OF THE CHEST. Sponsored by American College of Chest Physicians. Edited by Coleman B. Rabin, M.D., Assistant Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University. 484 pp. Illustrated. Price $19.50. Charles C Thomas, Springfield, Ill. 1958.

The stated purpose of the book is indeed a worthy one, "namely to present roentgenology of the chest to the roentgenologist from the clinical point of view and to the clinician from the radiological point of view." If in part only this goal could be considered to be achieved, this volume must be considered an outstanding success. In large measure it has.

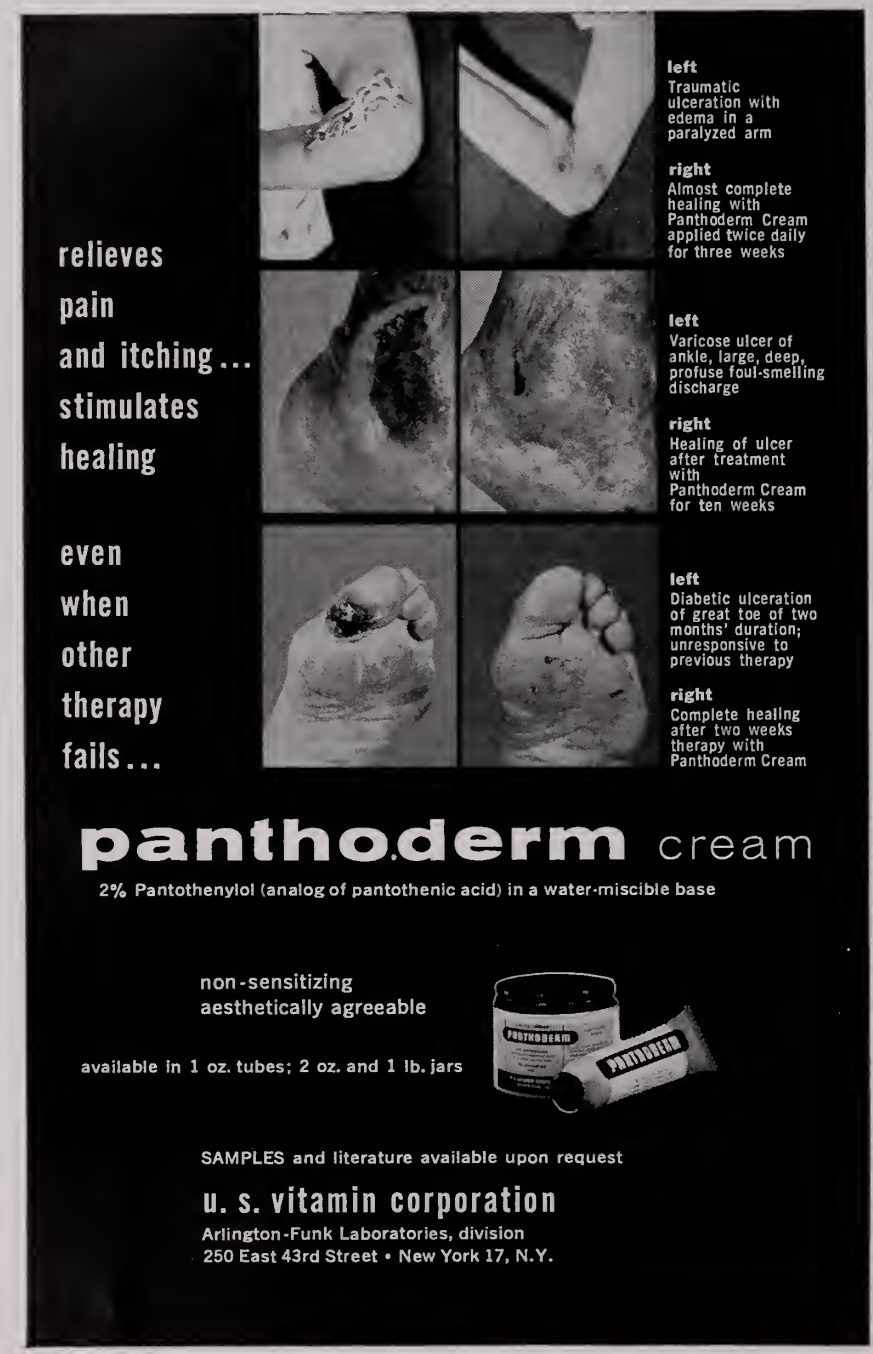
This is a multi-authored book by 50 outstanding experts who comprise a veritable "who's who" on chest diseases, both clinicians and radiologists. The authors have evidently been carefully selected and each is an outstanding authority in that specialized branch of pulmonary pathology under discussion. Several prominent specialists from abroad as well as American authors have contributed.

The book is divided into 39 diversified chapters. It starts out with a theoretic discussion of the possibilities and limitations of x-ray diagnosis in diseases of the chest by Leo Rigler and follows through with a discussion of normal roentgen anatomy, mass fluorography, plus detailed dissertations on various pathologic entities. The newer knowledge of chest roentgenology plus their respective clinical implications are thoroughly covered. Of special interest to radiologists will be the informative chapters on special signs and shadows in chest roentgenology.

The book is an excellent reference text and is recommended to all physicians interested in this field.

Homer V. Hartzell, M.D.

(Continued on page 947)



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(Continued from page 944)

OFFICE GASTROENTEROLOGY. By Albert F. R. Andresen, M.D., Clinical Professor Emeritus of Medicine, State University of New York College of Medicine at New York City. 707 pp. Illustrated. Price $14.00. W. B. Saunders Co., Philadelphia. 1958.

Ivy and Grossman required over 1000 pages to discuss peptic ulcer and Palmer filled 550 pages about the esophagus. Thus over 1500 pages were necessary for comprehensive presentation of two relatively small segments of gastroenterology. When Andresen attempted to cover the entire field of gastroenterology in 700 pages it was inevitable that the resulting volume would be little more than a compend. Nevertheless, the book is remarkably complete and mentions all phases of gastroenterology, but does not say much about many of them. There is nothing particularly new in the text and it serves best as a means of going over, once lightly, the field of digestive diseases. The reader who expects complete exposition of any particular subject will be disappointed and forced to seek more detailed works. As might be expected, Andresen mentions allergy frequently and attributes such an etiology to divers disease states, an attitude with which many clinicians will not readily agree. For the student or general practitioner the volume serves as a handy reference source. It has but little to attract the attention of internist or gastroenteroolgist.

Walter L. Voegtlin, M.D.

CURRENT THERAPY 1958—Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D., and 12 Consulting Editors. 827 pp. Price $12.00. W. B. Saunders Co., Philadelphia and London. 1958.

This compendium is particularly impressive to me because it discusses in excellent classification the diseases and defects that the human body is heir to, as well as making recommendations for their treatment. The information on treatment is remarkably current and differs from predecessors in this same series by emphasis on the newer antibiotics, the steroid drugs, cardiovascular aids and the tranquilizers.

This edition has a most remarkable list of contributors who, by their writings, indicate an acquaintance with the arts of medicine, as well as the scientific aspects, and many passages have allowed a touch of humor to intervene which is rare in medical texts but always welcome.

I feel that the present edition is a very worthy inclusion in any medical library. We will all agree that treatment must be individualized and not on a "cookbook" basis. Such a complete work as this lists nearly every aid, some of which might be otherwise overlooked in individual care.

The indexing and classification of diseases and treatment are excellent. The appendices, particularly the one on toxicology, are very complete.

The editor in chief, the consulting editors and each contributor are indeed to be congratulated. A tremendous amount of work, individually and collectively, is very apparent.

Robert B. Hunter, M.D.

NEW AND NONOFFICIAL DRUGS 1958. Containing descriptions of therapeutic, prophylactic and diagnostic agents evaluated by the Council on Drugs (formerly Council on Pharmacy and Chemistry) of the American Medical Association. An Annual Publication Issued Under Direction and Supervision of the Council. 645 pp. Price $3.35. J. B. Lippincott Co., Philadelphia and Montreal. 1958.

If you are tired of listening to the detail man and want unbiased information on drugs, you can use this authoritative volume. Drugs are listed in groups based on their properties, as local anesthetics, anti-

(Continued on page 948)





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(Continued from page 947)

histamines, anti-infectives to vitamins with a final chapter on miscellaneous preparations. They are listed under generic name; the chemical formula is given and structural formula is often included. Properties, action and uses, contraindications, and dosage are usually presented. Caution notes are included in some instances. Proprietary name is given at end of the discussion of the drug. Forty-eight new preparations have been listed this year and 13 have been dropped. Nine of the latter have been reported for 20 years and are well established. Four were excluded because no longer available. The index lists generic as well as proprietary names. This volume contains a great deal of information and in these days of high printing costs is a bargain at 645 pages for $3.35.

H. L. Hartley, M.D.

THE PRINCIPLES AND PRACTICE OF DIATHERMY. By Bryan O. Scott, M.R.C.S., L.R.C.P., D.Phys.Med., Consultant in Physical Medicine, The Radcliffe Infirmary and Cowley Road Hospital, Oxford, England; The Churchill Hospital, Headington, and the Oxford Regional Hospital Board. 193 pp. Illustrated. Price $5.00. Charles C Thomas, Springfield, Ill. 1957.

This 193 page monograph by a British author is a concise and practical presentation of short wave diathermy as a therapeutic agent. The first half of the book deals with basic electrophysics and the production of short wave currents, and the last half reviews biologic effects of short wave heating, indications and contraindications, prescription and technique of application.

The book is well illustrated and the information is basic and factual. There is probably greater emphasis on condenser application in contrast to induction technique than experiences in this country would indicate. There is no discussion of microwave diathermy.

Nevertheless this book is recommended reading for every one who prescribes or administers short wave diathermy. Certainly an understanding of the precise effects and potential hazard of this energy would go a long way to eliminate the empiricism with which it is so commonly used today.

Sherburne W. Heath, Jr., M.D.

THE HUMAN EAR CANAL. By Eldon T. Perry, M.D., Instructor in Dermatology, Wayne State University. 116 pp. Illustrated. Price $4.75. Charles C Thomas, Springfield, Ill. 1957.

There is probably no otologist alive who has not at some time wished for the skill or consultation of a dermatologist while treating an external otitis. This author has recognized that need and has done something about it.

In turn, Perry discusses comparative anatomy, embryology, gross and microscopic anatomy. Then follows a discussion of the too little understood physiology of the external ear canal with emphasis slanted to the skin.

Cerumen—its physical and chemical properties and its functions—is discussed at length.

In opening his discussion on otitis externa the author affirms a truism that points out why otologists have frequent difficulty with diseases of the external ear—that patients with the same diagnosis may present entirely different appearances. Then follows an account of the more common external ear conditions that can aid in differential diagnosis. Perry suggests that idiopathic pruritus of the external ear may be a low grade contact dermatitis which can be confirmed by a biopsy revealing spongiosis or microvesiculation of the hair follicles or by patch tests of probable allergens. It has an allergic basis and is distinct from primary irritant

(Continued on page 950)

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References: 1. Welch, H.; Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy *5*:52 (Jan.) 1958. 2. Carlozzi, M.: Antibiotic Med. & Clin. Therapy *5*:146 (Feb.) 1958. 3. Shalowitz, M.: Clin. Rev. *1*:25 (April) 1958. 4. Stone, M. L.; Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy *5*:322 (May) 1958. 5. Cornbleet, T.; Chesrow, E., and Barsky, S.: Antibiotic Med. & Clin. Therapy *5*:328 (May) 1958. 6. West, R., and Clarke, D. H.: J. Clin. Invest. *17*:173 (March) 1938. 7. Jimenez-Diaz, C.; Aguirre, M., and Arjona, E.: Bull. Inst. M. Res. Madrid *6*:137 (Oct.-Dec.) 1953. 8. Lerman, S.; Pogell, B. M., and Lieb, W.: A.M.A. Arch. Ophth. *57*:354 (March) 1957.

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(Continued from page 948)
dermatitis which is caused by a substance that can produce a dermatitis on almost anyone.

It is shown that while an otitis can be caused by single factors as above, it is usually a combination of factors, such as moisture, high temperature, trauma, infection or change in the lipids of the skin surface.

The diagnostic approach and principles of treatment of external otitis are treated briefly in conclusion. The book is principally of use to otoligists.

E. B. Parmelee, M.D.

CLINICAL ELECTROCARDIOGRAPHY—The Spatial Vector Approach. By Robert P. Grant, M.D., National Heart Institute, National Institutes of Health, Bethesda, Maryland. 225 pp. Illustrated. Price $7.50. Blakiston Division, McGraw-Hill Book Company, Inc., New York. 1957.

This book should be read by everyone interested in electrocardiography. Most of us have been aware that the cathode-tube oscilloscope has been used for recording cardiac electrical forces. We have also been aware that while some information may be gained from this which the usual electrocardiographic tracing does not give, the expense and availability of this type of instrument has limited its clinical usefulness. This book helps us to appreciate cardiac vectors and shows us how they may easily be obtained from the usual electrocardiogram.

The usefulness of integrating these tracings into their vectors might be likened to a variety of quotations on a given stock market issue. If we were presented with a group of figures indicating that a stock had fluctuated, these would have little value unless they could be presented on a two dimensional plot showing magnitude and time. Grant shows us how electrocardiographic complexes from various areas of the body surface can be presented on a three dimensional plot.

The material presented in this book is quite easily understood by anyone who has had even slight experience with electrocardiograms. Familiarity with the book and with the methods involved will make the usual twelve lead electrocardiogram much clearer. In particular, QRS conduction defects and left axis deviation are placed on a more rational basis. Peri-infarction block is a concept which the author has introduced and which helps to explain a heretofore puzzling group of tracings.

This book should have a particularly wide acceptance in this area since the author recently presented a course at the King County Hospital in Seattle which covered the material in this book. All those who attended can vouch for Grant's exceptional ability as a teacher. The book follows the same clear presentation and organization which characterized his lectures here. It cannot be recommended too highly to anyone interested in electrocardiography.

John D. Collins, M.D.

BRITISH MEDICAL BULLETIN: ANAESTHESIA, Vol. 14, January 1958. 72 pp. Price $3.25. Medical Department of The British Council, London.

The symposium of papers presented cover some of the newer concepts and techniques which lead to a better understanding of the pharmacology and physiology of anesthesia, and their implications in clinical practice.

The 16 authoratative articles presented are fairly equally divided between the theoretic aspects, and the practicalities of anesthesia. Of particular value are the papers upon "Biochemical Disturbances in Anaesthesia," and "Carbon-Dioxide Homeostasis in Anaesthesia;" These often neglected subjects are dealt with succinctly, and with lucidity. A review of the principles, technique, and interpretation of

(Continued on page 952)

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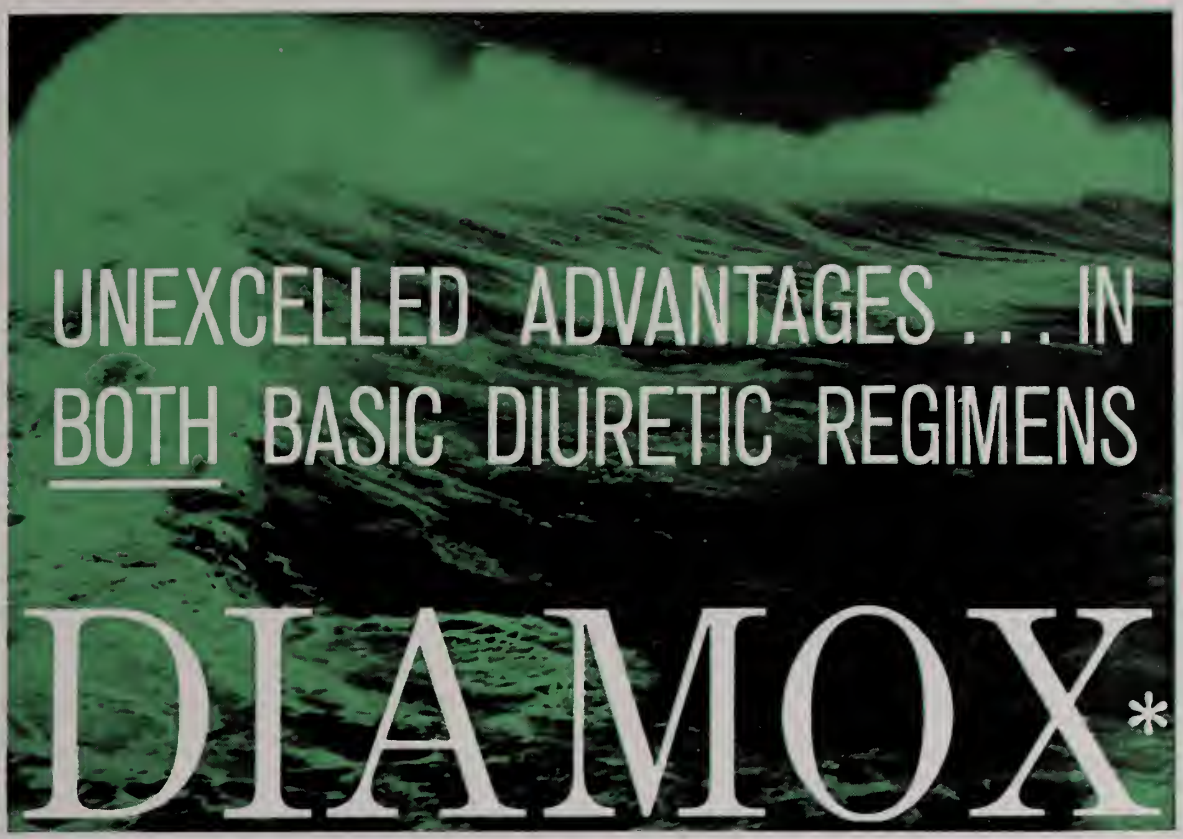
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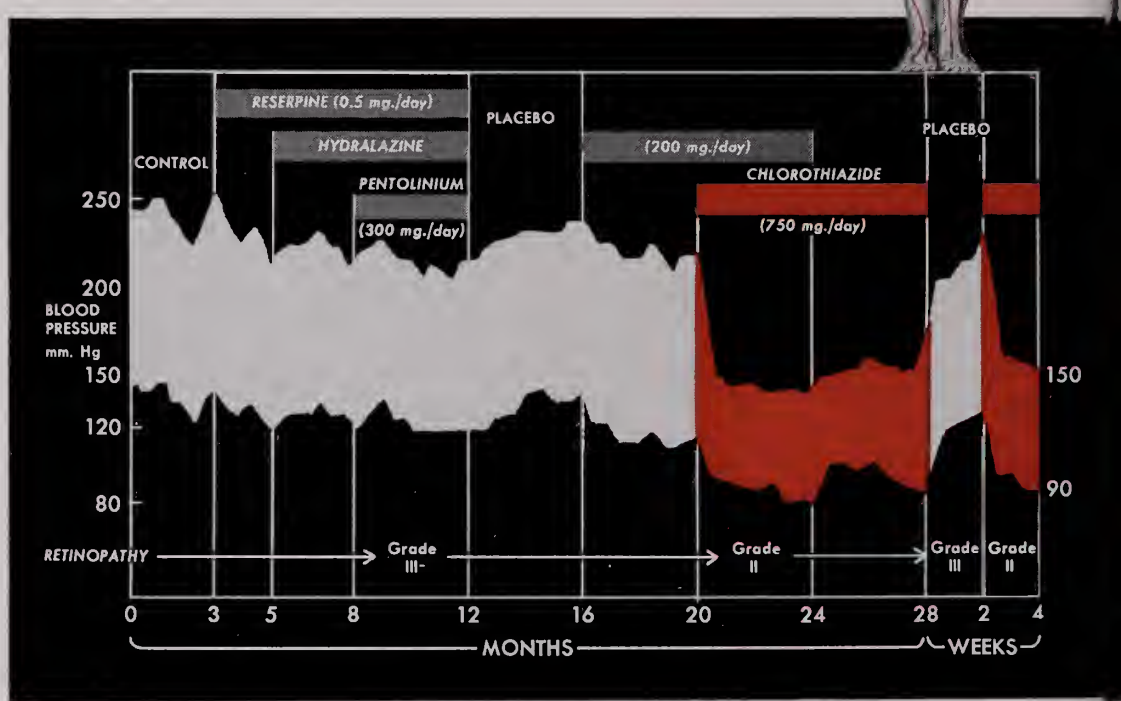
Wilkins, R. W.: New England J. Med. **257**:1026, Nov. 21, 1957.

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Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166**:137, Jan. 11, 1958.

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In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. **8**: 1, September, 1957.

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Gallbladder Surgery, Three Days, November 3.
Surgery of Hernia, Three Days, November 6
General Surgery, Two Weeks, November 10; One Week, October 27.
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Office & Operative Gynecology, Two Weeks, September 8
Vaginal Approach to Pelvic Surgery, One Week, October
General & Surgical Obstetrics, Two Weeks, September 22.

MEDICINE—General Review Course, Two Weeks, October 20.
Electrocardiography, Two-Week Basic Course, October 6.
Gastroscopy & Gastroenterology, Two Weeks November 3.
American Board Review Course, One Week, September 29. (For Part I Candidates Only)

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(Continued from page 950)

the E.E.G. is included, together with an indication of its usefulness as a monitoring device in anesthesia. The physics involved in the design of inhalers is dealt wiht by Dr. Epstein, with particular emphasis upon the series of machines which have emanated from his laboratories.

Articles are included upon hypothermia, neonatal anesthesia, obstetric anesthesia, and induced hypotension, the latter being treated in an unusual and interesting manner. The larger part played by general anesthesia in England, and the consequently lesser role of local procedures, is well illustrated in Dr. Crawford's article on obstetric anesthesia.

Although by no means a comprehensive review, the Bulletin covers a surprisingly large area of anesthesia.

Stanley A. Feldman, M.B.B.S.

HOW TO WRITE SCIENTIFIC AND TECHNICAL PAPERS. By Sam F. Trelease, Ph.D., Columbia University. 184 pp. Price $3.50. The Williams & Wilkins Co., Baltimore. 1958.

Streamlined might be the best word to apply to this small manual on writing. The information needed is in the book but the author wastes little time or printers ink in making it available. Trelease starts with suggestions on selecting the subject, tells how to utilize previously published material, gives excellent suggestions on outlining and writing the paper and then goes on to discuss form and usage. He even includes a brief chapter on the statistical method. He tells how to use tables, references and illustrations, and gives explicit directions for the manner in which they should be submitted to the publisher. Of the several recent books on writing, this appears to be the most concise. In spite of its compactness it is remarkably complete. Application of its rules would help almost any manuscript.

H. L. Hartley, M.D.

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AN INTRODUCTION TO FUNCTIONAL ANATOMY. By David Sinclair, M.A. (Oxford), M.D. (St. Andrews), Professor of Anatomy, University of Western Australia; Late University Demonstrator in Anatomy, University of Oxford; Late Lecturer in Anatomy and Physiology, Dorset House School of Occupational Therapy, Oxford. 426 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

This book is an excellent treatise on the fundamentals of anatomy. It is designed as a reference volume for those interested in physical and occupational therapy and presents a well organized, concise review of essential embryology, histology and physiology, as well as structural, topographical and functional anatomy.

The author intended this book for those of ancillary specialties whose needs in a reference book differ considerably from medical practitioners, medical students, and nurses. As would be expected, the physiology and anatomy of the musculoskeletal system receives far more attention than irrelevant systems, such as the urologic or alimentary.

The subject matter is written in a style that is simple and interesting, and the book should be a valuable reference text for those to whom it is directed.

Matthew H. Evoy, M.D.

ADVANCES IN RADIOLOGY: PROCEEDINGS OF THE FIFTH INTERNATIONAL CONFERENCE ON RADIOLOGY HELD IN STOCKHOLM on 15th-19th August, 1956. Edited by George Carl de Hevesy, Arne Gunnar Forssberg, and John D. Abbatt. 503 pp. Illustrated. Price $15.00. Charles C Thomas, Springfield, Ill. 1957.

This book is a report of the Fifth International Conference on Radiology in Stockholm in August 1956. The papers presented are basic in nature yet, nevertheless, have more than casual interest for the physician interested in radiology and the effects of radiation. The reports of outstanding investigators show the lines of approach to the study of irradiation effects at all levels; molecules, enzymes, cells, organs and whole body. Several articles on modification of irradiation effects by S. H. compounds (cysteine and others), temperature, hibernation, and other factors, are extremely interesting. Current interest in marrow transfusions is represented by animal work in this field. Time and tensity and premature aging experience are also reported. Several participants discuss the relation of irradiation to human leukemia and leukemia in animals. The final section is concerned with genetics and mutations—their causes and doses involved. Each report is followed by a brief discussion of several participants reflecting on their own work.

This book is of value both for browsing and for reference.

Thomas Carlile, M.D.

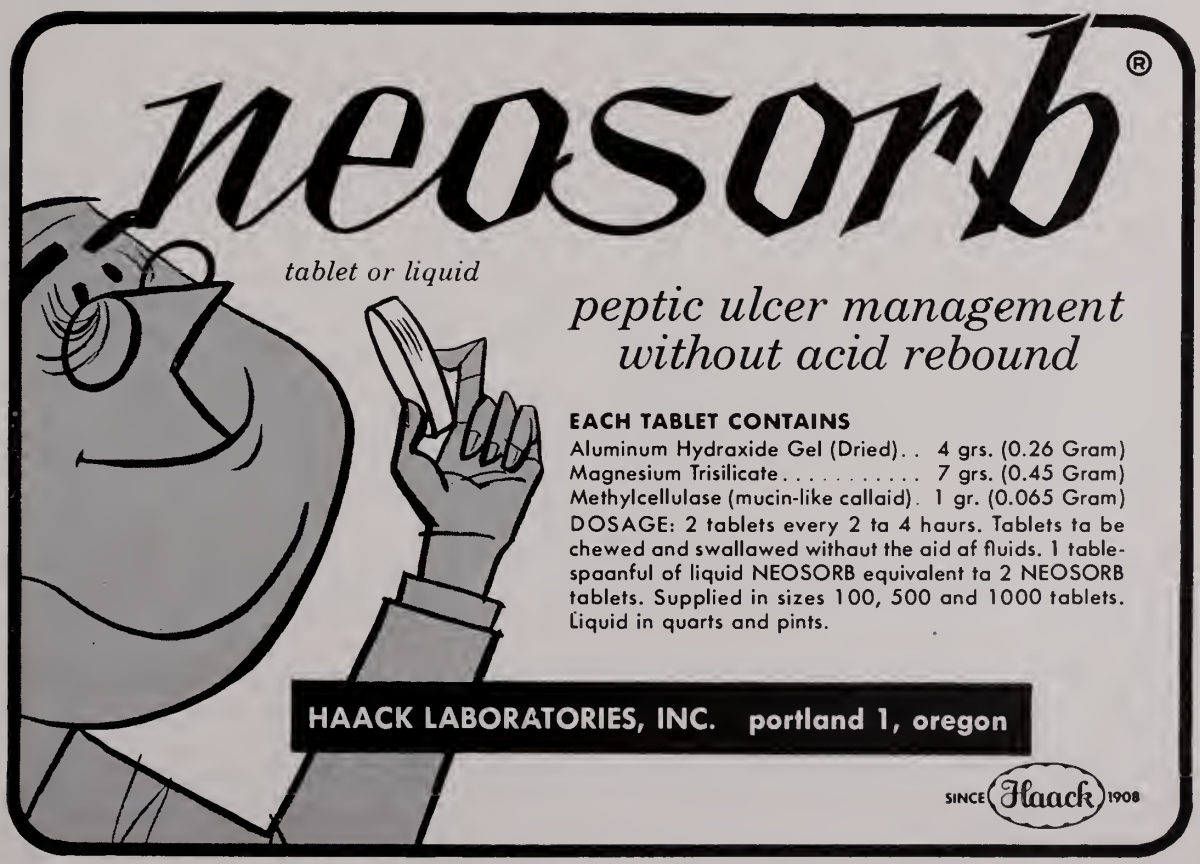
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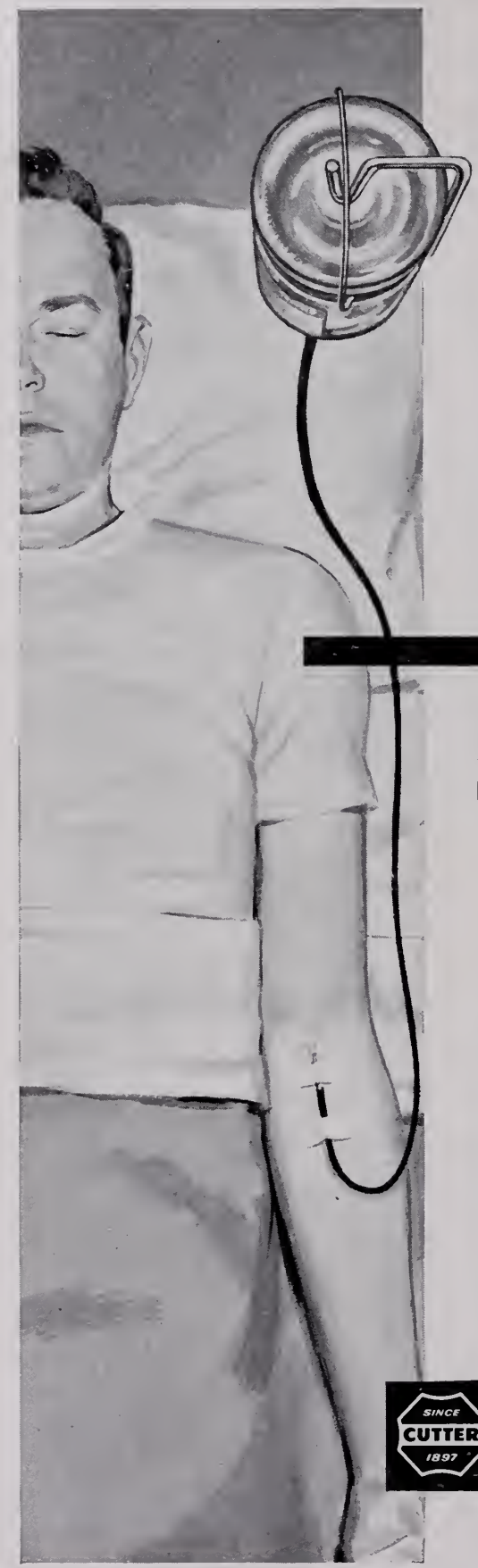
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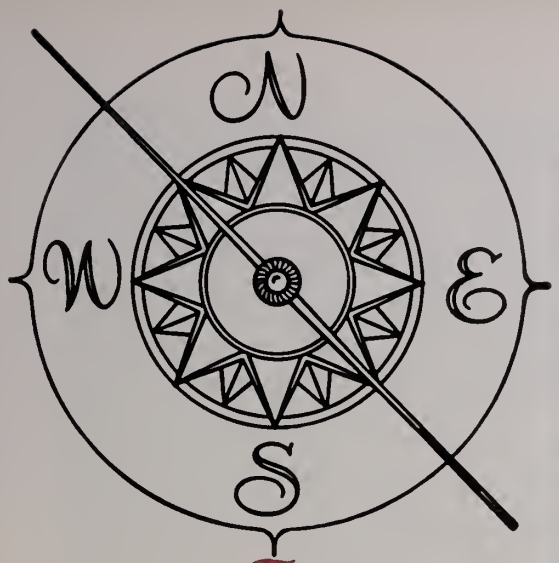
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FUNGICIDAL
ANALGESIC
HYGROSCOPIC

Anti-allergic · Anti-inflammatory

Manner of Use:
After gently cleansing and drying the ear canal, Otamylon with Hydrocortisone (2 or 3 drops or moistened wick) is applied three or four times daily.

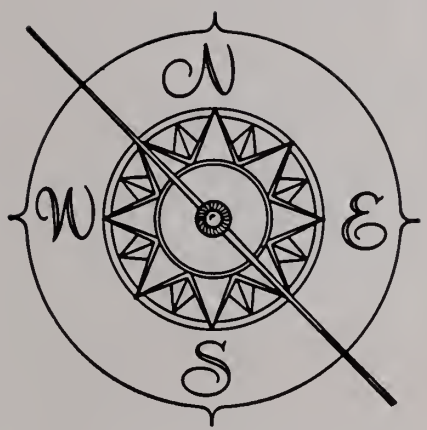
Supplied:
Combination package (15 cc.) with dropper: Otamylon and Hydrocortisone solutions readily mixed prior to dispensing.

Otamylon with Hydrocortisone is a clear, odorless, sterile, viscid liquid containing:

Sulfamylon® HCl	5%
Benzocaine	5%
Hydrocortisone	0.02%
Anhydrous glycol q.s.	100

Otamylon and Sulfamylon (brand of mafenide), trademarks reg. U. S. Pat. Off.

Winthrop LABORATORIES NEW YORK 18, N. Y.



NORTHWEST MEDICINE

OREGON

Raymond M. McKeown Re-elected AMA Trustee 1027

John F. Abele Named ta Jaint Committee an School Health 1027

84th Annual Meeting, OSM, Scientific Program 1029

Northwest Associatian of Occupational Medicine Annual Meeting Sept. 7 1031

Southern Oregan Medical Society Halds 67th Annual Meeting 1031

Industrial Health Conference Slated for September 8-9 1032

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Mrs. Underwood Featured in Waman's Auxiliary Convention, Sept. 14-17 1043

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COSA*

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glucosamine-potentiated tetracycline with nystatin
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SCIENCE FOR THE WORLD'S WELL-BEING
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References: 1. Welch, H.: Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958. 2. Carlozzi, M.: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958. 3. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 4. Shalowitz, M.: Clin. Rev. & Res. Notes 1:25 (April) 1958. 5. Cornbleet, T.; Chesrow, E., and Barsky, S.: Antibiotic Med. & Clin. Therapy 5:328 (May) 1958. 6. Stone, M. L.; Sedlis, A.; Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy 5:322 (May) 1958.

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IN ACNE

Fostex® degreases the skin and helps remove blackheads

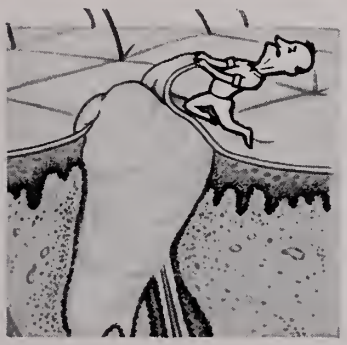


Fostex contains a combination of surface active agents (Sebulytic*) which:

◄ Completely emulsify excess oil so that it is quickly washed off the skin.



◄ Penetrate and soften comedones, unblocking the pores and facilitating removal of sebum plugs.



Fostex dries and peels the skin

◄ The Sebulytic base of Fostex dries and promotes peeling of the skin . . . actions enhanced by the keratolytic effects of micropulverized sulfur and salicylic acid.

*(Sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate, sodium dioctyl sulfosuccinate.)

FOSTEX CREAM
for therapeutic washing af skin in the initial phase af acne treatment, when maximum degreasing and peeling are desired.

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for maintenance therapy ta keep skin dry and substantially free of comedones.



Fostex is easy for your patients to use

◄ Patients stop using soap on affected skin areas. Instead they use Fostex for therapeutic washing of the skin. The Fostex lather is massaged into the skin for 5 minutes—then rinse and dry.

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NOW...A NEW TREATMENT

'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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Unsurpassed for rapid relief of symptoms of asthma and emphysema.

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Automatic NASAL aerosol nebulization provides prompt, effective, prolonged, and nonirritating decongestion in head colds, allergic rhinitis, sinusitis, and nasopharyngitis. Vasoconstrictive, decongestive, anti-inflammatory, antibacterial. Combines actions of phenylephrine, phenylpropanolamine, neomycin, and hydrocortisone.

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Notably safe and effective for children.
Nonbreakable, spillproof.



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CHLOROTHIAZIDE

FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

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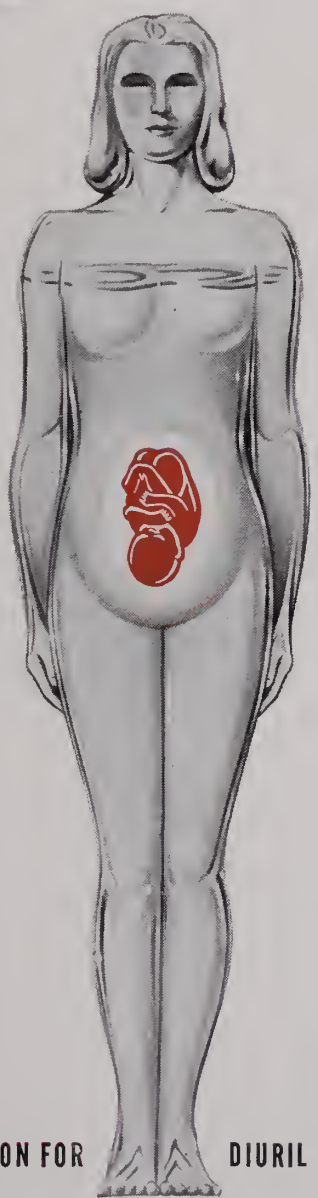
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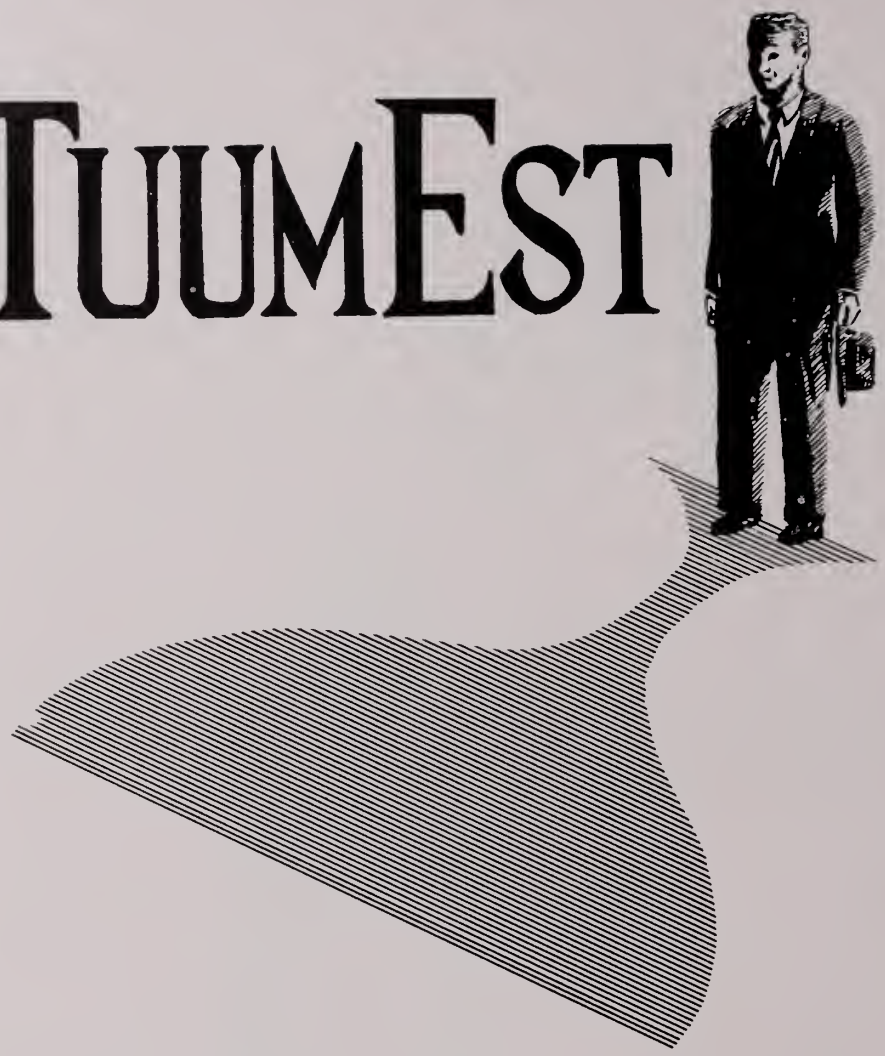
pregnancy

caused an excellent
diuresis, with
reduction of edema,
weight, blood pressure,
and albuminuria...."



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL

TUUMEST



The Romans had a word for it. "It's up to you," they said. The sage philosophy of the ages changes no more than does the value placed by mankind on the integrity of the individual. The keen insight of a discerning generation can be measured by the interest and care it places in the integrity of its members. Alcoholism is an insidious disease, seeking to destroy its victims. The extent of its damage is just now being appreciated by the medical profession and the public. But the interest generated in no way approaches the measure of care required.

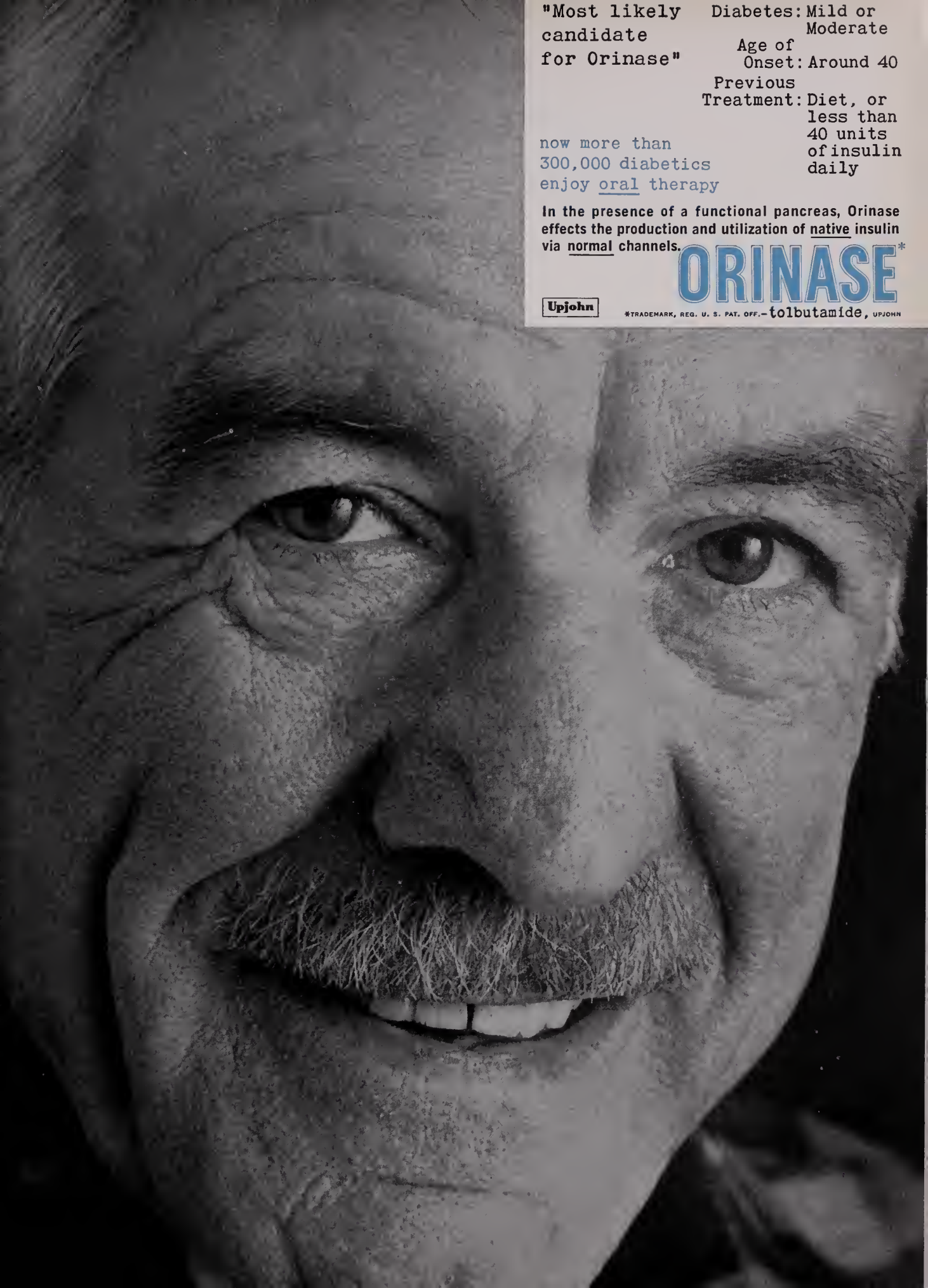
Full appreciation of such a problem can come only with time. And only time will yield the funds necessary to equalize and overcome the cost burden placed upon society by the ravages of this disease. But, first and foremost, you the physician have the opportunity to perform a service for your patients – and society. You can perform that service by recognizing the problem and then seeking the best possible care for it. *Tuum est* – It's up to you.

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SPECIALISTS IN TREATMENT OF ALCOHOLISM BY THE CONDITIONED REFLEX, NARCOTHERAPY AND ADJUVANT METHODS.

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Robins



– the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:827, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:180, 1958. 6. Park, H. W.: J.A.M.A. 167:188, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 93:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

Supply: Tablets (white, scored), 0.5 Gm., bottles of 50 and 500.

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Ethical Pharmaceuticals of Merit since 1878

Summary of four new published clinical studies:

Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1, 2, 5, 6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL of the American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL of the American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL of the American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]



Hospital practice of infant feeding

Standard one-formula mixture

Normal infant nutrition requires approximately 50 calories per pound of weight. Caloric distribution should be about 15% from protein, 50% from carbohydrates and 35% from fat as formulated for the mixtures in the tables below.

For young infants, a favorable hospital formula consists of a milk and Karo Syrup mixture, isocaloric with human milk, e.g. 20 calories per ounce.

WHOLE MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Whole milk	24	480	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

EVAPORATED MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Evaporated milk	11	484	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

An infant will usually take 2 to 3 ounces more than his *age in months* at 3 to 4 hour intervals to satisfy his appetite and nutritional needs. It is psychologically unwise to force prescribed amounts. Normally, the gain in weight of 6 to 8 ounces a week during the earlier months gradually diminishes to 3 to 4 ounces a week by the end of the first year. The standard one-formula mixture not only provides adequate nutrition when vitamin supplements are added; it also provides educational opportunities to prevent feeding problems.

ADVANTAGES OF KARO® SYRUP IN INFANT FEEDING



Composition: Karo Syrup is a superior dextrin-maltose-dextrose mixture because the dextrins are nonfermentable and the maltose is rapidly transformed into dextrose which requires no digestion.

Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

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want your

sympathy...

I need help...

do you understand

-H-E-L-P!"



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Each Cafergot tablet contains: Ergotamine
tartrate 1 mg., Caffeine 100 mg./Also
available: Cafergot Suppositories,
Cafergot P-B Tablets and Suppositories.

SANDOZ

CORRESPONDENCE

Place for All

Mount Vernon, Wash.

EDITOR, NORTHWEST MEDICINE:

In your June issue some unknown writer (I assume he holds a medical degree) wrote a letter and, I feel, said some very unkind and untrue things about the general practitioner. This is so true that I was not able to recognize this terribly incompetent doctor he talks about.

If I could make a suggestion to this unknown person it would be that he familiarize himself with the standards of medical care being provided in this state. I believe he would find that large numbers of sick people are pretty well taken care of these days by these lowly fellows.

Another suggestion that might be worth-while would be for him to attend a few of the meetings held by the American Academy of General Practice. I would venture the thought that he might find a pearl of wisdom or two.

In my book there is a very definite place in the practice of medicine for both the general man and the specialist. It is my feeling that neither one can replace the other and the death of the general practitioner would be a serious blow to the welfare of our people.

People who make serious accusations should have the courage to stand up and be counted. It is very difficult to defend yourself against an unknown foe who hides behind anonymity.

Sincerely,
H. J. Greer, M.D.

The letter referred to was published on page 709, under title, In Praise of Group Practice. The fact that it was not anonymous was indicated in the editor's note appended. The man whose name was not published is in active practice as a member of a group. He holds an important position in the constituent medical association of which he is a member. Although he and the editor are the best of friends, they seldom agree on anything except the fact that disagreement is always stimulating and frequently constructive. Permission to publish the letter was sought because it expressed disagreement with the April editorial. Ed.

Weed-Killer Information Sought

U. S. Public Health Service
Communicable Disease Center
Technology Branch
Toxicology Laboratory
P. O. Box 73
Wenatchee, Washington

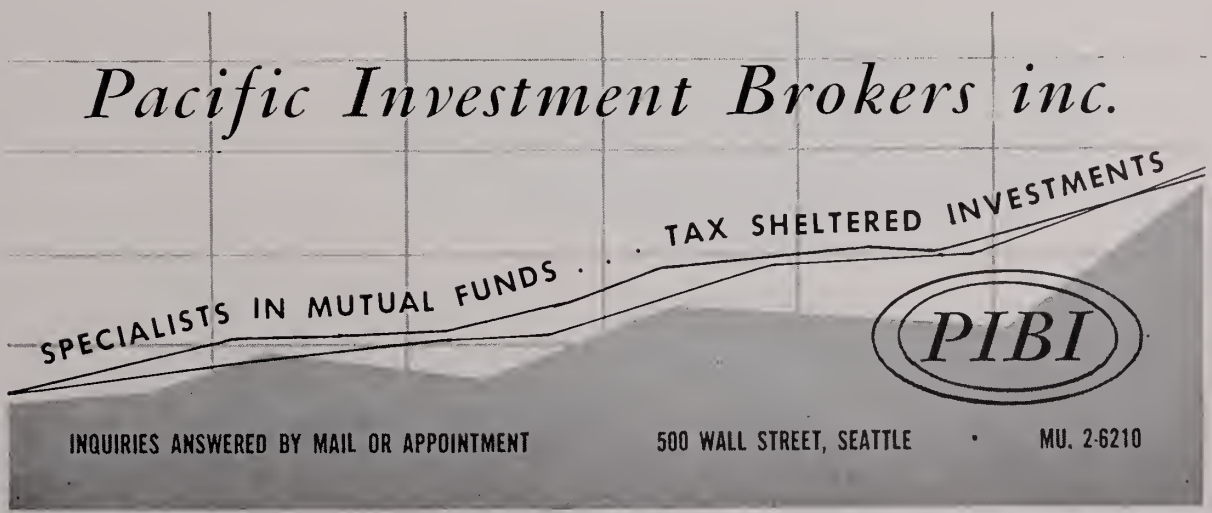
EDITOR, NORTHWEST MEDICINE:

We have investigated two recent cases diagnosed as idiopathic thrombocytopenic purpura in which the only known contactants were weed-killers of the phenoxyacetic acid type.

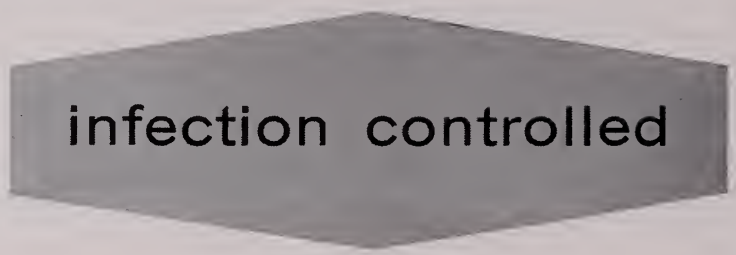
We have received unconfirmed reports of about twenty cases of "peculiar" illnesses associated with weed-killers.

We would appreciate hearing about any similar cases suspected to be related to weed-killers.

Very truly yours,
John D. Arterberry, M.D.
S. A. Surgeon (R)







With even the most rapid antibacterial action, pain of urinary tract infection usually persists until healing begins. So — Azo Gantrisin adds *symptomatic* relief to potent antibacterial action: its azo component offers swift suppression of both pain and discomfort during this interim phase.

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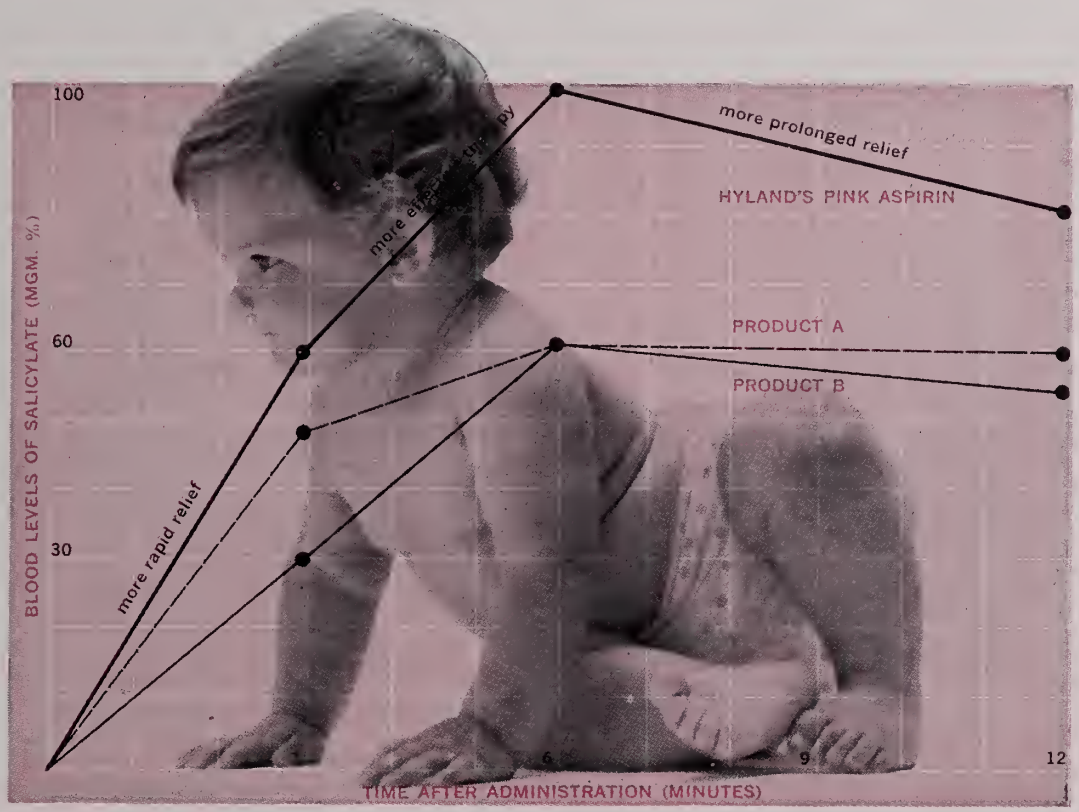




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NORTHWEST MEDICINE

VOLUME 57
NUMBER 8
AUGUST, 1958

EDITORIAL

Hill-Burton Study

The Hospital Surgery and Construction Act of 1946, better known as the Hill-Burton Act, has been under study by an AMA committee for two years as result of request from the Board of Trustees to the Council on Medical Service. The report and recommendations given to the delegates at the San Francisco meeting drew generous praise from the reference committee and approval from the House. Incorporated in the report is a review of the general problem of federal grants-in-aid which in 1902 accounted for expenditure of $3,000,000 and by 1957 had grown to 1,424 times that figure. Last year the federal government spent $4,270,000,000 through grants-in-aid in all fields.

The AMA committee found that administration of the act had been satisfactory and that waste due to governmental inefficiency had not been excessive. By June 30, 1957, 3,514 projects had been approved. Total cost was $2,874,587,085 with the federal share, $902,894,163. General hospitals took the major portion (82 per cent) with expenditure of $2,352,846,000 and gain of 121,456 beds. Other facilities benefiting were tuberculosis hospitals, mental hospitals, chronic disease hospitals, nursing homes, public health centers, diagnostic and treatment centers, rehabilitation facilities and state health laboratories. Grants to general hospitals were considered most effective.

What had been considered unmet needs when the program was started in 1946 appear to have been materially reduced in the general hospital field. This is particularly true in rural areas, now less urgently in need of hospital beds than urban and suburban areas. Need for beds in tuberculosis hospitals appears to have been met in view of changes in method of treatment and consequent decline in demand.

Basis used for determining bed needs came under some criticism. Present standard is 4.5 general hospital beds per thousand persons but the committee found that, in some states, 3 beds per thousand would be ample. There is some evidence that ill advised construction may result from rigid application of the ratio demanded by the act.

Similarly the committee finds that grants are not now being applied to the most critical needs. There is general lack of facilities for long-term care and requirements of the present legislation are interfering with construction of hospitals in suburban areas, now generally inadequate. A factor in these maladjustments is lack of sufficient freedom of the states in applying grants. Rigidity in assignment of funds to certain types of projects has forced some states to abandon plans for improvement.

The committee finds that needs for rehabilitation facilities have not been met but that grants for diagnostic and treatment centers should be discontinued. Neither should grants for public health centers be continued since most states have now made adequate provisions through use of local funds. Mental hospitals and nursing homes should have more aid.

In transmitting report of its subcommittee to the House, the Council on Medical Service made a number of recommendations. Continuation of the Hospital Survey and Construction program

is approved but its objectives should be redefined and certain changes should be made to make it more effective. States should be given greater latitude to permit more emphasis on suburban fringe areas and to stimulate modernization of existing hospitals. States should be permitted to establish their own priorities in accord with local needs and categorical grants should be eliminated.

The Council recommends that the terms *diagnostic and treatment center* and *public health center* be eliminated from the act. There is much confusion over the meaning of the first of these terms and little need has been demonstrated. Local and state taxes have provided enough to permit omission of the second from the federal law.

A program of federally guaranteed long-term loans is urged to provide low cost financing for construction and renovation of hospitals and nursing homes.

The Council recommends that a physician in private practice be named to the Federal Hospital Council. Recognition of the practicing profession has, so far, been denied. It seems strange that this has not been done since the physician in practice remains the key figure in care of the sick. His advice should be helpful in a program of providing facilities for their care.

Finally, the Council urges state medical associations to seek representation on state hospital advisory councils. The profession was notably inactive in the program in a number of states.•

Schemes to Save Schemes

No one seems to know how much medical care people ought to have. The question would never have arisen had medical care continued to be provided on a basis of individual responsibility of the individual physician to the individual patient. That responsibility and reciprocal responsibility of the patient to pay a reasonable fee would have provided all the adjustments necessary.

Prepayment schemes seem to have made adjustment much more difficult. When the patient pays the bills, his determination of his own need is usually fairly accurate. When the plan administrator pays the bills, he is quite apt to think that he should determine the amount of care his subscribers need. The trouble with his assumption is that when his ideas and those of his subscribers do not seem to coincide, he never questions the system he is trying to operate but blames the physician for not making it work. Witness the following, printed in the interests of the Blue Cross, Blue Shield plans in Iowa, by the *Journal of the Iowa State Medical Society* in the April, 1958 issue.

Claim Costs Continue to Rise

Increased costs of hospitalization and medical-surgical care have caused all rates for prepayment coverage to rise. Ironically, the increases in premium rates are largely due to the fact that more people are using hospitals and medical facilities more frequently. The rate of hospital admissions per 1,000 persons insured continues its upward climb.

Surgical procedures performed in physicians' offices have increased markedly during the past two or three years. The claims for those operations are usually rather small, dollarwise, but now it seems that everyone is running to a doctor's office for attention after minor accidents that heretofore were treated at home by a member of the family. From a medical standpoint, that is fine, but it is bad news for the men who are trying to keep prepayment rates reasonable.

People complain vigorously about the rising costs of prepayment insurance plans, yet individually they utilize the coverage at the slightest opportunity, apparently with the intention of getting their money back each year—with a good rate of interest, if possible.

The physician's office is the health-control center for the community, and the hospital is the physician's workshop, where the more definitive sorts of treatment can be administered. The physician controls the hospital inpatient rate, and he has a responsibility to his community to guard against abuse of insurance plans.

A family unit in which there are three children and a net take-home pay of less than $300 monthly doesn't have much money left for food if it must pay $15 to $20 per month for health-care benefits, either as prepayment or as recompense for services already received.

If the medical profession fails to cooperate in eliminating abuses in doctors' offices and in local hospitals, many of our citizens will be priced out of the insurance market, and the mass of voters will demand government subsidy for adequate health care.

This is not an isolated or unique complaint. Most plan administrators are looking for a scheme to save the scheme. Although the plans were set up so that people could have more medical care, the plan administrators think they should have less. And if the physicians will not "cooperate" they can probably be brought into line by the threat of governmental control.

Mr. Harry Becker had something to say about the matter a few years ago. He said that if the plans operated successfully and enrolled most of the population, politicians would find it expedient to take over. If the plans failed to provide what someone thought people needed, it would be necessary for the government to provide medical care.

Best solution of the problem would seem to be to put a little bit more emphasis on individual responsibility, but in a country as socialized as the United States, that may be an unwelcome suggestion.•

Colorado Code Attacked

Two physicians associated with the United Mine Workers' Welfare Fund in Colorado have attacked the Code of Ethics of the Colorado State Medical Association, one in public address and the other in lawsuit. Conflict in Colorado may seem remote but no one should be lulled into a false sense of security simply by distance. Basic issues are involved.

William Dorsey, medical administrator for the United Mine Workers at Denver, addressed the National Conference on Labor Health Services at Washington, D. C., June 18. The following sentences are from a copy of his remarks provided by the news service of the Conference:

> The perennial conflict between medical care plans and organized medicine has recently culminated in an intensive nation-wide effort on the part of organized medicine to prevent medical care plans from engaging in any form of physician selection. Medical care plans, if they are to provide a good quality of care at a justifiable cost, have no alternative but to designate the physician who will provide the services. Organized medicine, on the other hand, in its effort to preserve the traditional fee-for-service solo practice system, has no alternative but to insist that each patient have the privilege of choosing his own physician. This is the basic conflict of interest. ••• We hear much of the sanctity of the patient-physician relationship ••• but in all too many cases this confidence is blind or misplaced.••• Private practitioners are in the enviable position of selling their services to those who are unable to judge their quality. Organized medicine resents the intervention of a third party because they wish to preserve this immunity from professional scrutiny of their work.••• It is not our impression that anything like the majority of practicing physicians really believe in free choice, or are at sympathy with the tactics being used by their medical societies.••• There is some question whether organized medicine can prevent its members from participating in plans which deny free choice, without violating the antitrust laws. A close watch should be kept on the activities of medical societies, and prompt redress in the courts should be sought whenever they engage in illegal activities. ••• We should work toward repeal of legislation which restricts the operation of consumer or lay-sponsored medical plans. We should work toward a realistic revision of medical licensing laws.

The other attack is much more direct. It is a lawsuit filed, June 19, 1958, in the District Court for the City and County of Denver by William D. Broxon of Trinidad, Colorado, against the Colorado State Medical Association. Dr. Broxon is a physician approved by the United Mine Workers' Fund. His attack is based on the fact that the Colorado Society, on May 13, 1957, issued an official opinion interpreting certain sections of the Principles of Medical Ethics of the American Medical Association. The Opinion, and the AMA code which it includes, have become a part of the Colorado Society's code of ethics and, as stated by Dr. Broxon, a part of its bylaws. He claims that the Official Opinion is contrary to the interests of public health and welfare of the people of the State of Colorado, that it prevents efficient and effective dispensing of competent medical and hospital services, lowers the quality of care, raises the cost and tends to destroy competition. He prays the Court for judgment and decree in the following respects:

> 1. Declaring that said Official Opinion and the Supplement thereto are in violation of the Articles of Incorporation, Constitution and By-Laws of the defendant Society; are oppressive and injurious to the public interest; are unnecessary, unwarranted and unlawful interferences with the freedom and right of plaintiff to pursue his professional trade; are contracts in restraint of trade, contrary to the common law, public policy, and the laws of Colorado; and are, therefore, unlawful, void and unenforceable.
>
> 2. A decree permanently restraining and enjoining the defendant Society from in any manner enforcing said Official Opinion and the Supplement thereto.
>
> 3. For such other, further and different relief as the Court deems meet and proper in the premises. •



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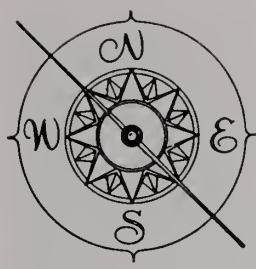
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ORIGINAL ARTICLES

Functional Uterine Haemorrhage

JOHN STALLWORTHY, F.R.C.S., F.A.C.S. (HON.)
OXFORD, ENGLAND

Most difficult aspect of this problem is its apparent simplicity, a misconception for which drug house propaganda and textbooks must share responsibility. Though a common gynaecologic disorder, it is not mentioned in some books and receives little attention in others.

Functional uterine haemorrhage may be defined as bleeding due to imbalance of those hormonal and other factors normally controlling menstruation.

It is important to note, at the outset, that it may occur either in association with, or in the absence of, organic pelvic disease. The practical significance of this fact will become evident later. Descriptions given of this syndrome, for syndrome it is rather than clinical entity, tend to over-simplify it. Forty years ago the diagnoses of subinvolution and fibrosis uteri were commonplace, but from this clinical and pathologic junk heap Schroder identified metropathia haemorrhagica. His description was clear. The pathologic findings of failure to ovulate, cystic ovary, and endometrial hyperplasia were correlated with clinical evidence of amenorrhoae followed by irregular or prolonged bleeding. Many patients fitted neatly into this category and the explanation of functional uterine bleeding seemed established.

Figure 1, familiar to all, illustrates the difference between the normal menstrual pattern and the abnormality described by Schroder in which the primary disharmony of the glandular orchestra controlling menstruation is a failure to ovu-

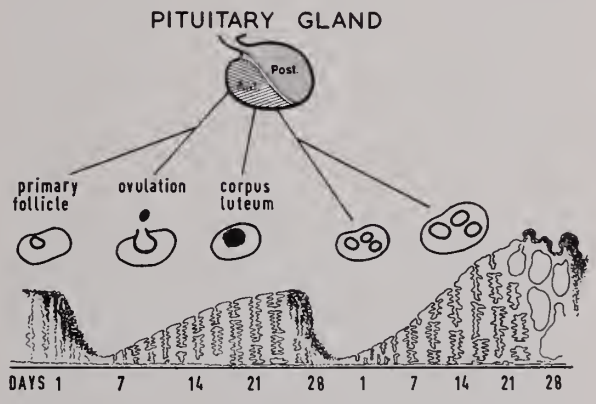


Fig. 1. Normal and abnormal hormonal pattern.

late. The result is excessive follicle stimulation and response. This point is important, for stimulation and response are not always coordinated as revealed by several clinical facts. Most women have phases of anovulatory bleeding. These come and go for no apparent reason, cause little or no disturbance of the menstrual pattern, and are discovered accidentally when biopsy or curettage is performed, as in the investigation of infertility. In an analysis of 1,000 consecutive infertile couples, I found anovulatory cycles in

Sommer Memorial Lecture presented at the 43rd Annual Meeting of the University of Oregon Medical School Alumni Association, Portland, Oregon, April 18, 1958.

26 per cent of women at the first examination, but functional bleeding was not a complaint. Many other observers have published similar results. When irregular bleeding associated with anovulation occurs, the ovarian disease has in common an absence of corpus luteum, but varies from the typical microcystic ovary of puberty bleeding to the large follicular cysts typical of menopausal metropathia. Despite the many variations in all age groups, if the basic fault in functional bleeding were always failure to ovulate the rational therapeutic approach would be an attempt to promote ovulation, however ineffective this might prove in practice. Failing this, treatment would aim at inducing typical endometrial changes by administering progesterone if by so doing a hyperplastic endometrium could be restored to normal function.

The clinical fact is that the simple pattern illustrated in figure 1 is not a constant finding in functional uterine bleeding, for not more than 50 per cent of patients have this imbalance to explain their symptoms. This further complicates the problem. In the last 120 hysterectomies performed in the Oxford Department for functional bleeding after more conservative measures had failed, only 15—that is, 12.5 per cent—had hyperplastic, non-secretory endometrium characteristic of metropathia. Most of these women were under 40 and none had demonstrable pelvic disease to explain the bleeding. In 69, or 57.5 per cent, ovulation had occurred as revealed by secretory endometrium. If operation had always been performed in the pre-menstrual phase, this percentage would almost certainly have been greater. The clinical problem, therefore, is that functional uterine bleeding may occur either in the presence or absence of ovulation, and from an endometrium that is histologically normal, hyperplastic, or even atrophic. Just as the ovarian response to gonadotrophins is not constant, so the endometrial reaction to ovarian stimulation varies. Different portions of the same endometrium may react differently in the same cycle to produce local areas of hyperplasia (Fig. 2), and even when this does not occur the growth effect of oestrogenic hormone is not always correlated with its influence on uterine bleeding. Thus a well developed endometrium may be associated with scanty periods whereas a relatively atrophic endometrium can be the source of profuse menorrhagia. This may sound academic but is important for two reasons. It demonstrates that an apparently simple problem is basically extremely complex, and secondly that no single therapeutic measure could be expected to prove beneficial in all cases. Disappointing though the results of conservative treatment often are, it is surprising that they should appear effective as frequently as they do.

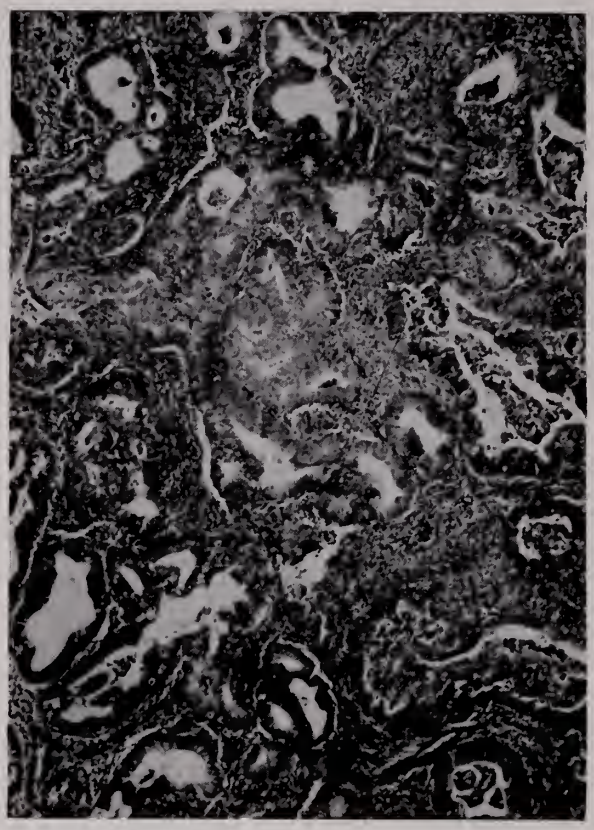
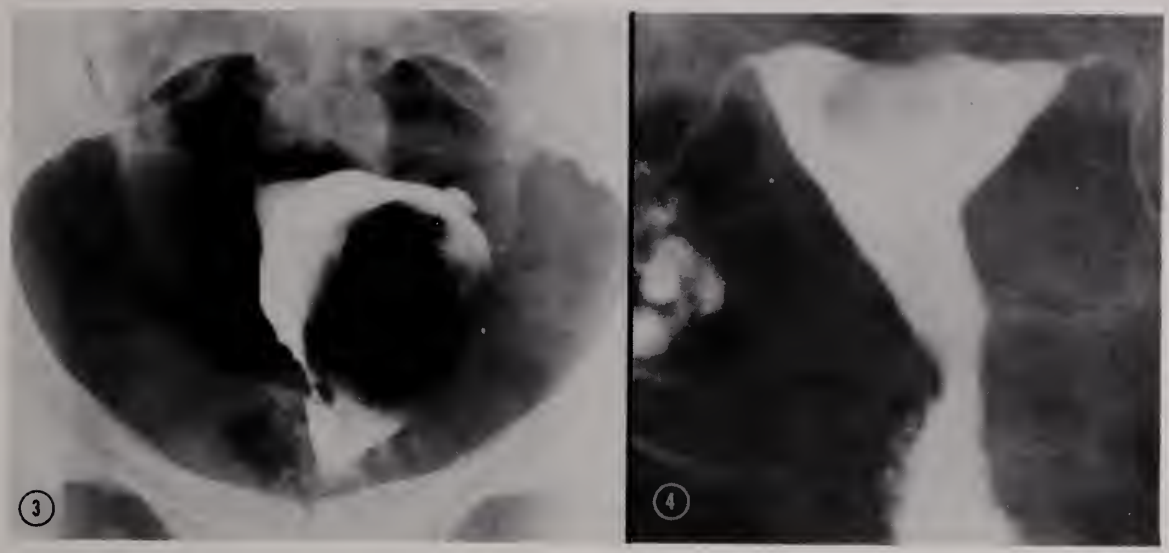


Fig. 2. Local hyperplasia in normal endometrium.

With these considerations as a background, the more important clinical aspects of the syndrome can be reviewed with better understanding. It is easy to teach a medical student that the treatment of acute appendicitis is appendectomy but the practical problems associated with its accurate diagnosis are not so easily learned. The theoretic approach to differential diagnosis may be given in lecture or textbook but final wisdom comes only on the path of experience, and passing years bring both success and failure. In like manner, before the therapeutic problems of functional uterine bleeding can be assessed, certain clinical pitfalls must be recognized.

My definition referred to a disturbance of hormonal and other factors *either in the presence or absence* of organic pelvic disease. This is in contrast to the more common definition that functional uterine bleeding is due to imbalance



Figs. 3 and 4. Submucous fibroid.

in the *absence* of organic disease. The wording was deliberately chosen to emphasize an important point. Many a patient with fibroids or endometriosis or retroversion or uterine tuberculosis has no menstrual disorder. Others with similar diseases have gross disturbances but it must be remembered that though abnormal bleeding will be due to the disease in some, in others it will be functional as defined above. An illustration emphasizes the practical importance of this. Fibroids, particularly when submucous, frequently cause menorrhagia but are seldom responsible for the irregular bleeding characteristic of functional uterine haemorrhage and the two conditions frequently co-exist. Myomectomy will cure the one, but disappoint the patient and bring the surgeon into disrepute in the other. Conversely, hormone therapy will be expensively futile in treating bleeding incorrectly attributed to hormonal disfunction when in fact it is due to submucous fibroids.

Importance of Diagnosis

Oxford is much nearer than Portland to the clinics of continental Europe and, as many know, the doctors of some countries are keener than their colleagues elsewhere on endocrine therapy. When the profession becomes so specialized that there are medical gynaecologists, surgical gynaecologists, and obstetricians, the first group can be relied upon to use more than their quota of hormones. So it is that from time to time women are seen with profound anaemia after lengthy and expensive endocrine treatment for what was thought to be functional uterine haemorrhage when in fact an unsuspected submucous fibroid was the hidden enemy. We can all make this mistake which a hysterogram can prevent and its value should be remembered in doubtful cases (Figs. 3, 4).

In Britain probably more than in America another source of error sometimes revealed by the biopsy curette is endometrial tuberculosis (Fig. 5), or even carcinoma of the corpus in a young woman. The fact that 140 cases of tuberculosis have been treated in the department in the last 20 years demonstrates the need for constant vigilance. Other diagnostic errors to trap the unwary are blood dyscrasias, such as thrombocytopenic purpura, leukaemia, agranulocystosis and, rarely, polycythaemia. Thyroid dysfunction sufficient to cause severe and prolonged bleeding can be missed unless its possible role in these cases is kept constantly in mind.

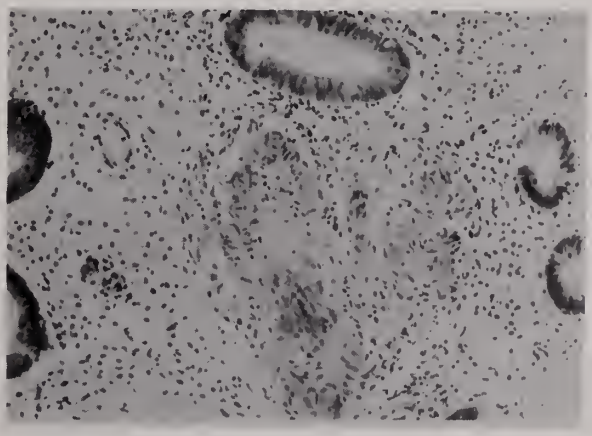


Fig. 5. Endometrial tuberculosis.

Even more important, because it is more frequent, is functional bleeding associated with

anxiety states and emotional conflicts. Many a woman has been subjected to hysterectomy for recurring meno-metrorrhagia when what she required was sensible contraceptive advice or guidance with an intimate problem which the doctor ignored. Whatever method of treatment is favoured for the syndrome, results will be unsatisfactory and may be disastrous without accurate diagnosis. A priest will sometimes render more help than a drug-house and treatment effective for metropathia could be disastrous for carcinoma.

Hormone Therapy

It has been requested that this lecture emphasise the hormonal aspects of functional bleeding. In busy practice neither the patient nor the doctor can always afford the money or the time necessary to establish a precise diagnosis before commencing treatment, but diagnosis before treatment is as sound in principle as cocktails before dinner, and much more important. Endometrial biopsy or curettage should, as a rule, precede hormone therapy. Failing this, cervical cytology is an added precaution in a mature woman but if for any reason the diagnosis is not established before treatment it should be firmly accepted that *hormones should not be administered more than an absolute maximum of three months without curettage unless normal rhythm is restored and cytology is negative.* If puberty bleeding is not severe, one can temporise longer with safety. But, even so, the possible ill-effect of admitting a teenager to hospital for curettage has to be weighed against the psychologic trauma of continuous or irregular bleeding. If the therapeutic response is not rapid, examination under anaesthesia and curettage is necessary. When transfusion is necessary to replace blood loss in these young patients, the value of fresh, Rh matched blood from a pregnant woman with its high hormone content should be remembered.

Treatment

If the imbalance indicated in figure 1 were the explanation of this syndrome as is commonly assumed, treatment would aim at restoring ovulation, or, failing this, at changing the endometrium to a more normal pattern by substitution therapy. After repeated trials with both proprietory preparations and stronger solutions prepared for research, we have had no success in inducing ovulation by hormone therapy in the human. Some workers have claimed success but that has not been our experience and we have abandoned this line of treatment.

Restoration of a more normal endometrial pattern with at least temporary relief of symptoms is usually much easier and there is no need to make it a complicated and expensive procedure. Oestrogens are cheaper than progesterone and in most cases cyclical oestrogen therapy is effective. The theoretic need for both hormones correctly balanced is attractive but it must be remembered that most women with anovulatory cycles menstruate regularly and apparently normally. The interaction of both hormones is obviously not a necessity. Moreover, the correct balance for the administration of oestrogens and progesterone, even if both were necessary, is not known. In any series of cases of functional uterine bleeding there is at least a 50 per cent chance that ovulation is occurring with resultant progesterone influence of the endometrium. So-called physiologic curettage by progesterone administration is unsound and expensive unless easier methods have failed and biopsy has confirmed the metropathic picture.

Stilbestrol

A reasonable and usually effective treatment plan, applicable to most cases, consists of giving stilbestrol 1 mg., or its equivalent, for 18 days commencing when bleeding ceases. It is then stopped until after the next episode of bleeding when the same routine is repeated. This is continued for three monhs by which time, in a substantial proportion of patients, regular cycles are instituted. If the loss is continuous or heavy it may be curtailed by larger doses of oestrogens, such as stilbestrol 5 to 10 mg. daily. When bleeding ceases, this dose is slowly reduced over a period of days to 1 mg., which is continued until the end of the 18 day interval previously described. This simple routine should not be continued for longer than three months and, if it fails, curettage is indicated. In the event of recurrent irregularity the case should be assessed at consultant level. No reference has been made to androgens or to the use of pellet implantation or other forms of depot therapy as these are best reserved for the relatively few selected cases in which simpler measures have failed and the endometrium has been studied histologically. To describe them in more detail here would complicate the general picture. One is reminded of the words of Sir Anthony Carlisle written in 1824: "In your ideas of the powers of remedies

do not be too sanguine, for you are liable to continued disappointment."

In addition to these measures a valuable therapeutic weapon, not as widely known as it should be, is the administration of liver, as described by Wiles and Maurer, Curtis, and Sutherland. In the liver treatment of pernicious anaemia it was observed that menorrhagia was controlled. Clinical trials demonstrated that the less purified preparations of liver fat contained a saponification-stable substance which was called the antimenorrhagic factor. Curtis found concentrated liver extract, 8 to 16 cc. daily, effective whereas capsules prepared for treatment of pernicious anaemia were not. This factor has been marketed by Armour under the name of Amfac Glanules. In his first series of 46 cases of functional uterine bleeding, Sutherland gave 2 glanules three times daily during active bleeding, and 1 to 2 glanules three times daily one week before a period for three months. No alternative treatment was given and 60 per cent of his patients were completely cured, and 8 per cent were materially improved. The shortest treatment given in his series lasted for 2 months and the longest for 10.5 months. The treatment was most effective in the younger age group and less successful at the menopause. Nausea, due to intolerance, was rare. We have used this preparation with encouraging results, but research is still in progress and it will be some time before detailed analyses are available. An interesting point is that some patients with functional uterine bleeding have capillary disease in the skin vessels as demonstrated by the capillary microscope. It may be that similar changes occur in the endometrial vessels, but more work must be done to investigate this. The effect of liver treatment on the capillaries is being studied at Oxford.

The general treatment of these patients is important. Reassurance is of the greatest importance when no pathologic lesion is found. As already explained, anxiety can itself be a casual agent. Anaemia must be treated but a practical point often overlooked is that some women lose more heavily when taking iron during a period. For this reason it is wise to stop taking iron on the eve of and during menstruation.

Hysterectomy

However enthusiastic one may be concerning hormone therapy, and I frankly admit that I believe its place is limited, the fact remains that in refractory cases, particularly at the menopause, surgery can restore the patient to health and activity while at the same time removing a real threat to her future. The emancipation of a woman whose life and social activities have been planned round the all too few estimated clear days of the month has to be seen to be believed. Curettage will restore 30 to 50 per cent to normal, at least temporarily, but if recurrence fails to respond to cyclical hormone therapy we advise hysterectomy and usually perform it by the vaginal route.

A further comment on functional bleeding and the role of surgery as it is practised in the Oxford Department is given by the following results. Of 160 hysterectomies performed at the Radcliffe Infirmary on women under 40 in the last 5 years, 83 (52 per cent) were for functional bleeding which had not responded to the methods of treatment outlined in this address (Fig. 6).

HYSTERECTOMY under 40

Indications		Number	Percentage
Functional Bleeding		83	52%
Carcinoma :			
a. Cervix (Post-radiation Wertheim)	17)		
b. Cervix Stage O	6)	25	15.6%
c. Corpus	1)		
d. Ovary	1)		
Fibroids		20	12.5%
Endometriosis		13	8%
Miscellaneous		19	11.9%
Total		160	100%

Fig. 6. Hysterectomy on women under 40 performed in five years (1952-1957) from approximately 11,000 consecutive inpatient operative cases.

Another aspect of this problem is revealed by an analysis of 78 hysterectomies following a previous pelvic floor repair. It is significant that 25 of these (32 per cent) had the repair operation at the age of 40 or over, and subsequently required a hysterectomy for bleeding. It is also interesting to note that of the total series, hysterectomy was performed on 25 for subsequent functional bleeding, and of these only 2 had the typical metropathic picture. Thirteen had non-secretory endometrium and 10 had histologically normal secretory type. There were 2 cases of bleeding associated with ovarian thecomas.

The moral of this is that when a pelvic floor repair is necessary in a woman of 40 or over, it is doubly important to assess carefully the whole

clinical picture and if at that stage there is indication of functional bleeding, it is a wise plan to combine vaginal hysterectomy with the repair.

In a consecutive series of over 1,400 vaginal hysterectomies performed on women of all ages, including many poor surgical risks and women over 70, there has been 1 death. This occurred from cardiac failure on the third day after operation. Comparable results can be obtained by the total abdominal operation as shown by no operative deaths in 1,514 cases in the years 1951-1957. (There was one postoperative death from pulmonary embolism in a patient with heart disease.) As Moynihan once said, "surgery has been made safe for the patient and now the patient must be made safe for surgery." If this is attended to, the risk of major surgical procedures is now slight indeed. It should be remembered, moreover, that the dangers of carcinoma of the corpus developing in women with functional bleeding at 50 or over is definitely increased, and for this reason there is a strong case against hormonal therapy and in favor of surgery for women in this category.

Summary

Functional uterine bleeding is a complex syndrome as yet imperfectly understood. Accurate diagnosis is essential to eliminate blood dyscrasias, polypi, infections and even carcinoma. Curettage is advisable, both as a diagnostic and therapeutic measure, and cures of approximately 30 per cent can be expected. Liver preparations are valuable and cyclical oestrogen therapy is cheap, easy to control, and effective in a sufficient proportion to make it justifiable as the first line of attack when endocrine therapy is chosen. More elaborate and expensive hormone therapy with androgens and progesterone should be reserved for selected cases in which the endometrial pattern has been studied. Functional menopausal bleeding should not be treated conservatively too long, and if recurrent or associated with a menopause delayed to 50 or over, hysterectomy offers immediate cure and future safety. •

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For distribution through physicians' offices, the booklet currently is available from the Association of Casualty and Surety Companies, 60 John Street, New York 38, N.Y. Price is $4.60 per 100 copies, regardless of quantity.

Rehabilitation

G. N. Aagaard, M.D.*
SEATTLE, WASHINGTON

First, I wish to thank Dr. Erickson and the Oregon State Board of Health for permitting the allocation of your unencumbered Rehabilitation Construction funds. These funds have been of great significance in the construction of our Rehabilitation Unit in the University of Washingtgon Teaching and Research Hospital. We deeply appreciate your action.

In any discussion of rehabilitation it is wise first to agree on a few fundamental definitions. Rehabilitation is the process through which the person with a major handicap is helped to achieve his maximum potential on the physical, social, emotional, and vocational spheres of life. In our consideration today we will think of individuals with major handicaps as those kept from their normal activities by disability for a period in excess of six months.

There are, of course, definitions of rehabilitation which are quite broad and include every aspect of health care. The physician and nurse in treating any patient with an acute illness are practicing rehabilitation in an effort to restore the sick person to normal function at the earliest possible moment. In this presentation, however, I will confine my discussion to restoration of the individual with the major handicap to his maximum functioning capacity.

The Problem

How much of a rehabilitation job is there for us to do here in these United States? How many individuals are there among us with major handicaps? It has been estimated that at present there are some 40,000,000 people in the United States who have some chronic disease or impairment. Of these, 5,300,000 have a long-term disability which, for a period of at least six months, makes it impossible for them to work or carry on other normal activities on a regular basis. Between 2,000,000 and 2,250,000 individuals are estimated to be disabled at the present time and to have been disabled for a period of 12 months or longer. Of the 5,300,000 disabled people mentioned above, about 1,200,000 are institutionalized in mental, turerculosis, and other hospitals whereas 4,100,000 are not in institutions. Rusk has estimated that 12 per cent of the people in the United States have disabilities which would require prosthetic devices, special surgery, special treatment, or special vocational training and placement if they were to be made self-sufficient.

What are the diseases which cause these major disabilities? Distribution in any given institution varies depending upon the age group, occupations, and other factors in the population served. Hilleboe and others reporting on a series of patients in the New York Rehabilitation Hospital found that 20 per cent of their patients had arthritis, 20 per cent had hemaplegia, 17 per cent had paraplegia or quadriplegia, 13 per cent had malunited fractures, 11 per cent were victims of multiple sclerosis, 3 per cent had had amputations and 16 per cent were in a miscellaneous group most of whom had various neurologic diagnoses. Cardiovascular renal disease, neurologic disorders, arthritis and related conditions, tuberculosis, and blindness are almost always among the most significant diseases causing major disability.

Diagnosis of Disability

As in all of medicine, rehabilitation must begin with an accurate diagnosis. We must know precisely what disease or diseases the patient has. But the rehabilitation diagnosis does not stop with a simple cataloging of the ills which beset the patient. Diagnosis must be extended into evaluation. You must know not only what disease or what injury the patient has but what this disease has done to the patient and what the patient can do with the disease. You must know to what extent the illness has disabled the individual and his potentiality for restoration of physical, emotional, social and vocational functions. It has been stated repeatedly and with truth that the rehabilitation process is a team program.

* Dean of the University of Washington School of Medicine, Seattle, Washington.

Read before Conference on Rehabilitation, University of Oregon Medical School, Feb. 27, 1958, Portland, Oregon.

This teamwork begins in the diagnosis and evaluation phase. Cardiologist, neurologist, orthopedic surgeon, neurosurgeon, physiatrist, psychiatrist, psychologist, social worker, nurse, physical therapist, occupational therapist, vocational counselor—all of these and more may be needed for the proper diagnosis and evaluation of the patient with a major handicap.

Treatment

Treatment in the rehabilitation program follows diagnosis and evaluation and is similarly a team process. Obviously, the team needs a leader but the rehabilitation effort is fundamentally one to which individuals from different disciplines must contribute if the desired result is to be obtained. The rehabilitation process may begin and should begin at the earliest possible moment if the degree of disability is to be minimized and return to maximum function speeded. Participation of the key members in a rehabilitation program for any given patient may vary from time to time according to the progress he makes. At one stage it may be the physiatrist and the physical therapist who carry the responsibility. Later the psychiatrist and the social worker may take over if the patient experiences a period of depression or deep discouragement. The orthopedic surgeon may carry major responsibility during the period when surgical restoration is required. The clinical psychologist and the vocational counselor may carry responsibility to a major extent during the final stages of the rehabilitation process for some individuals. Many different specialists may be needed in consultation for brief or prolonged observation of the patient.

Results

What are the results of a rehabilitation program dealing with patients with chronic major disabilities? Obviously, the results will depend to a large extent upon the type of patients and the types of disabilities under consideration. Hilleboe's study, previously referred to, reported on 100 welfare patients with major disabilities. Eighty per cent of these patients had had disabilities for more than one year and in 48 per cent, disabilities had been present for five years or more. These 100 patients had a total of 120 handicaps in addition to the disabilities for which they were admitted. Thirty-two patients showed abnormal mental conditions, such as mental deterioration, mental retardation, depression, psychoneurosis, and chronic alcoholism. Nineteen patients had cardiovascular complications. Certainly they were not selected as easy cases.

What were the results? On admission 48 per cent required custodial care. At the time of discharge only 23 per cent required custodial care. At the time of admission 42 per cent were ambulatory with or without aids. At the time of discharge 67 per cent were ambulatory with or without aids. On admission 60 per cent were considered to have no potentiality for employment but on discharge only 36 per cent were considered unemployable. In August, 1957, Rusk reported on 31 patients with spinal cord injuries who were sent from Georgia to the New York University, Bellevue Rehabilitation Unit. Twenty-nine had paraplegia and 2 had quadriplegia. On admission 10 were bed-bound. On discharge none were confined to bed. On admission 17 were capable of ambulation and of these, 8 were able to step up a curb or a step. On discharge 27 were capable of ambulation and could use steps. One year later, 24 were still capable of ambulation and none were confined to bed, indicating that most of the rehabilitation gains had been maintained. On admission 7 of the 31 patients had been employed, but one year after discharge from the rehabilitation center 14 were employed and 10 were in training for employment and appeared certain to be employed.

Permanence

The question may be asked, do these people stay rehabilitated? The Rusk study referred to above gives some indication of this in the figures cited during the observations made at least one year after discharge. Bruehl reviewed a series of patients who received services through the Division of Rehabilitation in the State of Washington. These patients were reviewed from 30 to 42 months after they had been declared rehabilitated. Purpose of the study was to see how effective rehabilitation services had been in helping people with physical handicaps to become productive and self-supporting members of society. Ability to remain self-supporting was the chief criterion of effectiveness. Ninety-two per cent of the patients followed were found to be self-supporting either as wage earners or as housewives. Only 2.8 per cent of the patients followed were receiving public assistance at the time of follow-up. Fifty-three per cent had been receiving public assistance at the time that they

were accepted for rehabilitation services. Eighty-five per cent had received wage increases since they had resumed employment and in one-half of the cases these increases had amounted to more than $1,000 per year.

How effective are rehabilitated patients as workers in the industrial world? During World War II, 83 per cent of our nation's industries employed handicapped workers. These industries reported that among the handicapped workers there was a smaller labor turnover, less absenteeism, fewer accidents, and equal or higher rates of production. If these people are placed in jobs within their capabilities they may actually have advantages over able-bodied workers.

Costs of Disability

What are the dollars and cents of rehabilitation? Many of you are probably familiar with the data supplied by the Office of Vocational Rehabilitation concerning 44,000 people who received vocational and physical rehabilitation under that agency in 1944. Twenty-two per cent, or more than 10,000 had never been gainfully employed and nearly 90 per cent were not employed at the time that they started their rehabilitation program. The annual average wage of the entire group prior to rehabilitation was $148. After rehabilitation the average annual wage had increased to $1,768. Total earnings of the entire group rose from $6,510,000 to $77,786,000. Prior to rehabilitation the majority of these persons relied on general public assistance not only for themselves but also for their families. Annual cost to the taxpayer for this assistance varied from $300 to $500 per case. Total cost of rehabilitation averaged only $300 per case.

Bakst has pointed out that disability is disadvantageous economically in the following ways: 1. It reduces the purchasing power of the individual. 2. It increases taxation. 3. It decreases tax payments. 4. It gives a generally lower social tone to society. The rehabilitation process reverses all four of these disadvantages.

Further Results

Perhaps the most important gain from the rehabilitation program is the restoration of the individual's morale, the upbuilding of his dignity and self assurance. This is well illustrated by a patient under my care during World War II. This middle-aged man with hypertension had had a cerebral vascular accident and was unable to continue the vigorous type of work which he had pursued previously. Because his savings were soon spent, he and his family found themselves on relief. Under my care the patient had received a low salt diet together with other medications which I was at this time attempting to evaluate in the treatment of hypertension. As his general condition improved and he regained the function of his partially paralized arm and hand, he asked if he might do some wood work at his carpenter's bench at home. He was encouraged to do this.

As his physical improvement continued he began to cut out attractive wooden figures. He decorated them with gay paints, and placed them as ornaments in his garden. Several months after his stroke had occurred and when the rehabilitation process was moving along nicely, I noted that his blood pressure had dropped very significantly. In fact, this drop occurred at a time when I had stopped the active medication which I had been testing and had given him a placebo. The drop in blood pressure had been much more striking than any which had occurred on low salt or any other form of treatment to which he had been subjected. This was a matter of considerable interest so I asked various questions and encouraged him to tell me what change had taken place since he had last visited me in the hypertension clinic.

With considerable emotion and satisfaction he told me that since his last visit, his new business, the creation of wooden garden ornaments, had increased to such a point that he had been able to go off the public assistance roles. Then he told me how much concern and even shame he had felt that he and his family had found it necessary to become public assistance clients. He spoke with great feeling of his joy at being able to take himself off the relief roles. Here was an influence more potent, as far as his blood pressure was concerned, than any diet or medication which I had been able to prescribe up to that time. Without a doubt, the spiritual and emotional values of rehabilitation not only for the patient but for his family are the most significant although incalculable.

Costs of Rehabilitation

Costs of rehabilitation vary of course with the degree of disability, the complications which have occurred, and the type of facility in which the program is carried out. Rusk and his col-

leagues estimated that the cost for rehabilitation of the patients with paraplegia or quadriplegia referred to previously was $1,794 if there were no medical or surgical complications. However, if medical or surgical complications had occurred before admission to the rehabilitation center, the cost of rehabilitation for each patient was increased to an average of $4,467. This illustrates the tremendous importance of instituting proper care early in the course of the illness, in order to prevent unnecessary disability and medical and surgical complications.

Planning

How can one start a rehabilitation program and what should one do to make available this important service? I am aware, of course, of the fine work already going on at your Portland Rehabilitation Center and here on the campus of the University of Oregon Medical School. Certainly, first one should look at the community to see who is interested in rehabilitation. In a typical community of some size, one will find that there are many people with major handicaps. Fortunately there are many voluntary and governmental agencies interested in helping these individuals. Mobilizing this interest and potential assistance is a challenge, the meeting of which brings great rewards. Although a number of agencies may be interested primarily in a limited phase of rehabilitation or in assisting patients with a particular type of handicap, it should be emphasized that a comprehensive rehabilitation center should be the primary objective. There should be one place where any individual, no matter what his disability, can get thorough diagnosis and evaluation and begin the rehabilitation process. The comprehensive center should be the initial effort because it is economical from the standpoint of both facilities and personnel. As you well know, we are at the present time suffering from a great shortage of many of the health personnel needed in rehabilitation programs. Physical therapists, occupational therapists, physiatrists, and clinical psychologists are in short supply and their services must be utilized wisely to meet the needs of the handicapped individuals. This can best be done through providing these services in a comprehensive unit.

Hospital Cooperation

The comprehensive rehabilitation center should have close relationship to a general hospital. It has already been pointed out that the rehabilitation process for any given patient may from time to time call upon a wide variety of health specialists. Similarly, the special facilities of the hospital laboratory or x-ray department or other special equipment for medical or surgical procedures may be of the utmost importance to the patient benefitting from the rehabilitation program. In fact, for the person with an acute major injury, like a spinal cord injury, members of the rehabilitation team should see the patient as early as possible after the acute injury and contribute to his care at the earliest possible time. In this way complications and unnecessary disability can be prevented.

Program at University of Washington

Our rehabilitation program at the University of Washington Medical School and Hospital will not be large as far as physical facilities are concerned but we are confident that it will have a large impact on the health picture in our state and in the Northwest. Although our major objective is the education of members of the health team for work in the rehabilitation field, we will give a very significant amount of service. Although the beds assigned to the rehabilitation service itself will be few in number the rehabilitation team will also serve patients on many other services of the University Hospital. In addition, the rehabilitation unit will evaluate and treat a much larger number of ambulant patients. Our services will include medical and the related specialties—physical and occupational therapy, psychological testing, social service, and vocational counseling. We do not expect to provide actual vocational training within the University Hospital but we will work very closely with the staff of the Office of Vocational Rehabilitation and with sheltered workshops and other vocational training units. We are looking forward to the full scale opening of this program in the fall of 1959, because we know that it will make a major contribution to our program of teaching and research and to our contribution to the health care of our people.

In conclusion, rehabilitation offers an opportunity to invest talent, energy, and funds in an enterprise which gives unparalleled dividends in human and economic values. From the inception of the program through diagnosis, evaluation and treatment, cooperation and teamwork are the watchwords.•

University of Washington School of Medicine.

Ruptured Abdominal Aneurysm

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Less than a decade ago, ruptured aneurysm at any site was considered a hopeless situation. Early attempts at correction of this serious condition almost consistently met with failure. These earlier methods included proximal ligation of the abdominal aorta, wiring and electrocoagulation, wrapping or re-enforcement, and combinations of these procedures. In addition, Matas[1] utilized ligation and obliterative endoaneurysmorrhaphy successfully in one case. This apparently was the first recorded instance of cure of an aneurysm of the abdominal aorta by ligation. Since the introduction of resection and replacement by grafting of abdominal aneurysms, this treatment for these lesions has become quite successful. However, the number of successfully treated ruptured aortic aneurysms is still quite small—in fact, I have not seen a report of a successful case from the Northwest area.

Seriousness of aneurysms was recognized by Szilagyi,[2] who found that 61.6 per cent of patients with aortic aneurysm died from its effects. The study of Estes[3] further supports the fact that most patients with abdominal aortic aneurysm succumb from the direct effects of this lesion. He noted that 63 per cent of individuals with aneurysms died from rupture of the dilated vessel.

My experience corroborates the seriousness of this lesion. Preceding the time of successful treatment of aortic aneurysms, many instances of rupture of these lesions were seen in the Virginia Mason Hospital.

It is unusual for patients to die of ruptured aneurysm without preceding warning in the form of persistent lower abdominal pain, which often radiates into the back. The presence of a large pulsating abdominal mass may cause the patient to feel as though he has a "second heart" in the abdomen. To the physician, the large pulsating abdominal mass is an obvious sign of abdominal aneurysm, and when accompanied by pain the prognosis is grave unless corrective measures are taken. Since the introduction of homografts and synthetic prostheses, a number of abdominal aneurysms have been repaired successfully in this hospital by elective operation.

The case presented here illustrates that ruptured aneurysm is not a hopeless condition, but is today a salvageable surgical emergency.

CASE REPORT

The patient, a 54 year old man, was in good health until about one week prior to admission to the hospital. During this week he had noted a nagging distress in his lower back, particularly when sitting up and especially when driving. He was returning home from a trip when he was suddenly seized by severe pain in his low back and lower abdomen. With the onset of severe pain he became ashen grey in color and developed nausea and vomiting, was forced to stop the car, and had a loose bowel movement. His wife who was with him, drove him to the nearest town and he was seen shortly afterward by a physician and a surgeon. During the careful examination it was noted that he had an abdominal mass to the left of the midline, which was vague in outline and was thought to be pulsatile. The patient was somewhat overweight, making abdominal palpation exceedingly difficult. Palpation was complicated also by the presence of some abdominal spasm. There was tenderness, particularly in the right flank, and a sense of resistance over the entire right side of the abdomen. There were no bowel sounds in the right flank. An x-ray of the abdomen showed gas to be present in loops of bowel in the left upper quadrant, but no loops of bowel were present in the right lower quadrant. His hemoglobin when first seen was 11 Gm., blood pressure 110/70, and pulse 72, but these were apparently labile. His temperature was 98.6 F. An I.V. pyelogram done with the patient in bed, shortly after he was brought into the hospital, revealed the right kidney to be somewhat transverse and pushed upward out of position. The psoas shadow on the right was obliterated. It was concluded that the patient had an abdominal aneurysm, and he was

sent by ambulance to the Virginia Mason Hospital. On admission the patient was in acute distress. He was pale, sweating and complaining of severe lower abdominal pain radiating into the back and into the right flank. On abdominal examination the entire right side of the abdomen was doughy, and exquisitely tender. There were no bowel sounds in the right flank or right side of the abdomen. Femoral pulsus were present but weak. Further examination revealed a vaguely outlined, pulsatile mass extending to the left of the midline. I.V. pyelogram showed the right kidney to be pushed upward out of position. The ureters appeared normal. An electrocardiogram showed an abnormal tracing, consistent with coronary insufficiency. His hemoglobin was 9 Gm. on admission contrasted with 11 Gm. obtained several hours earlier.

It was felt that this patient had a ruptured aneurysm which was temporarily occluded by clot, and that surgery was mandatory in spite of the abnormal electrocardiogram, in order to save the patient from extravasation.

The patient was taken to the operating room and a long left paramedian incision was made from the xiphoid to the symphysis pubis. Immediately on entering the abdomen, a large mass of clotted blood was seen in the retroperitoneal area of the right flank, covering the entire right side of the posterior abdominal wall. Every effort was made not to disturb this huge clot. As soon as the incision had been made and these findings noted, the upper extent of the aneurysm was exposed without disturbing the hematoma, and a clamp was placed on the aorta, following which a clamp was quickly placed on each iliac artery (Fig. 1). This maneuver offset the possibility of further leakage into the flank. Following this, the huge clot in the right retroperitoneal area was evacuated. The aneurysm was then excised, and an Edward-Tapp nylon bifurcation graft was sutured in place (Fig. 2). Inspection of the aneurysm showed a rupture of the right anterior lateral wall through which two fingers could be placed. After graft was sutured in place, the clamps on the aorta and the iliac arteries were slowly released while the patient's blood volume was replaced with 4,000 cc. of whole blood. At termination of the procedure the patient's condition appeared to be good.

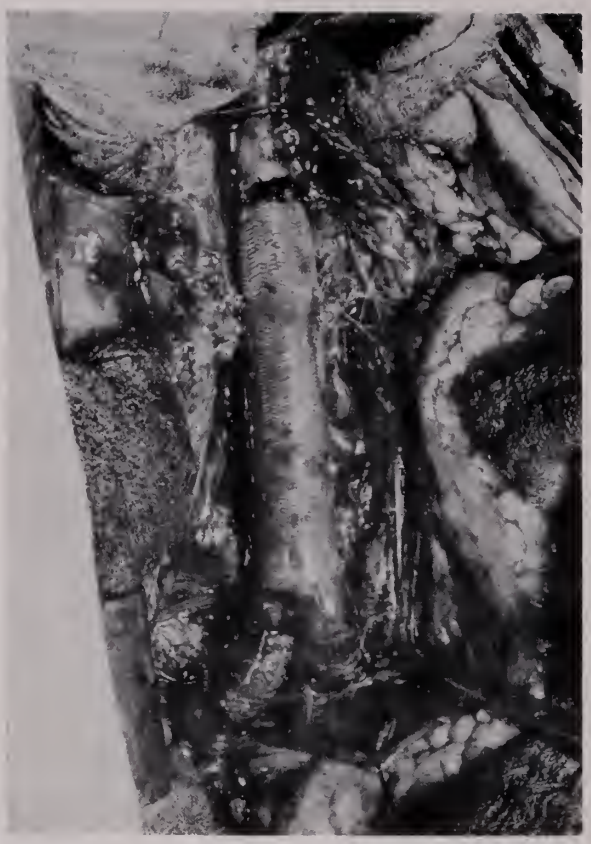


Fig. 2. Graft replacing resected aneurysm.

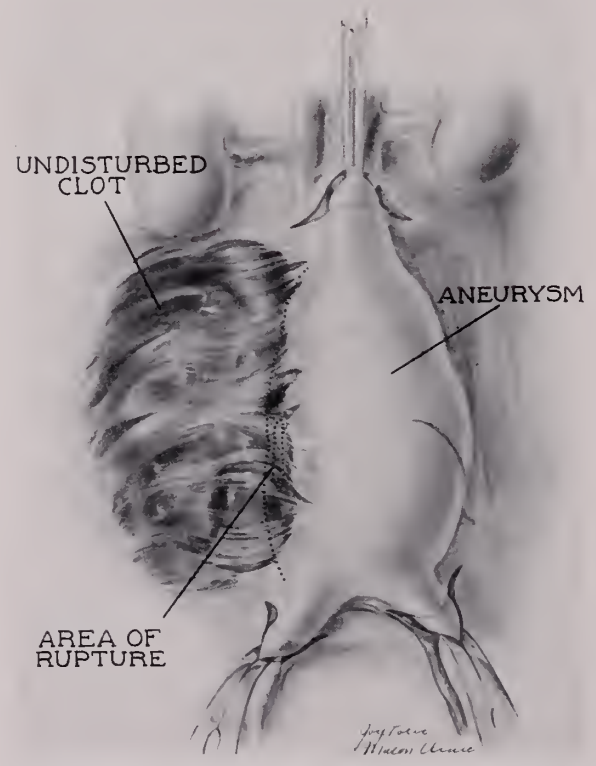


Fig. 1. Clamps placed on aorta and iliac vessel controlling further hemorrhage before clot is touched.

The patient's postoperative course was smooth until the twelfth postoperative day, when he suffered a myocardial infarction. He also developed necrosis of the wound edges, later accompanied by separation of the wound. The wound was treated conservatively because of the patient's infarction. He gradually improved from both the wound complication and the myocardial infarction, and was discharged approximately four weeks after operation. Since discharge the wound has healed in completely and, although there is some weakness of the wound, is not symptomatic. Electrocardiograms showed progressive improvement, and the patient returned to work at an executive job, eight hours a day. He has been followed as an out-patient for 10 months, and his condition continues to improve to the point where he leads an essentially normal life.

Discussion

Recognition of the presence of an abdominal aneurysm prior to rupture and treatment of the aneurysm by resection and graft is obviously the

ideal form of therapy for this serious lesion. Presence of lower abdominal pain and a pulsating abdominal mass should alert the physician to a very grave situation, indicating that rupture of an abdominal aneurysm is imminent. The physician should by no means consider this a hopeless situation. Instead, surgery should be recommended at the earliest possible time.

The case presented here indicates that the physician who recognizes the possibility of abdominal aneurysm and, in particular, leaking or ruptured abdominal aneurysm may render the patient a life-saving service by advising immediate operative treatment. From the operative standpoint, the most important maneuver is to control the leaking abdominal aneurysm by placement of clamps proximal and distal to the aneurysm as soon as the incision has been made. Exploration of the aneurysm itself, with no controlling clamps, will obviously disturb the only defense the patient has—namely, the clot which is occluding the tear in the aorta—and the patient may be lost by uncontrollable hemorrhage. In operations for ruptured aneurysm, the mortality rate will obviously be high under the best circumstances. De Bakey[4] reports operative mortality of 33 per cent in 27 cases of ruptured abdominal aneurysms. This is by far the largest series reported in the world literature. In my experience with operative treatment for unruptured aneurysms there have been 3 postoperative deaths in 18 operations. This includes an 83 year old patient who died of renal failure. I have had no additional operative experience with ruptured aneurysm. Since the patient's prognosis is otherwise hopeless, operation in this situation is mandatory despite the high operative mortality.

Summary

A 54 year old patient with a ruptured abdominal aortic aneurysm is presented. Resection of the ruptured aneurysm and replacement of the aorta with a bifurcation graft was accomplished successfully. The patient has been followed for 10 months and is in excellent condition at the present time. An aortic aneurysm, whether ruptured or unruptured, represents a grave condition with a poor prognosis. Recent surgical developments have transformed ruptured aneurysm from a hopeless condition to a salvageable surgical emergency.•

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Doctors Often Neglect Their Own Health

Like the proverbial shoemaker's children without shoes, physicians often neglect their own health, it was pointed out yesterday.

Charles E. McArthur of Olympia, Wash., reviewed the results of physical examinations given to doctors at the last three A.M.A. meetings by the Section on General Practice, of which he is chairman.

Of the first 3,228 electrocardiograms made, 18 per cent were found to be either "definitely abnormal or borderline." Of 2,749 chest photofluorograms, 18 per cent showed suspected or definite abnormalities including tuberculosis, chest neoplasms, and cardiovascular abnormalities.

Previous studies of physicians' health have indicated similar percentages of difficulties and also have shown a higher annual death rate, especially from diseases of the heart and the coronary arteries, for physicians than for the public at large.

The reasons why physicians as a group have a higher mortality rate from heart disease than the general population probably are nervous tension, insufficient exercise, inadequate or incorrect diets and lack of attention to their own health.

Interestingly, specialists were found to have a much lower death rate than general practitioners. Dr. McArthur said the probable reasons for this difference were that specialists are concentrated in urban centers where they have the advantage of large hospital facilities and also have the opportunity to consult a man who is a relative stranger.

From AMA Daily Bulletin issued during San Francisco session.

Intestinal Polyps in Children

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Intestinal polyps are relatively rare in children. This was affirmed by review of the records of the past ten years at three local hospitals in which only nine cases were treated surgically. Incidence of approximately 0.07 per cent has been reported in pediatric admissions in some of the larger institutions.

Polyp is a gross anatomic diagnosis and may be any pedunculated structure protruding from a mucous surface without regard to histological structure. It may include fibroma, myoma, lipoma, angioma, lymphadenoma and pseudopolyp as well as adenoma.

The present discussion is concerned with the adenomatous polyp which is defined as a proliferation of the structures of the glands of Lieberkühn which produces sessile or pedunculated growths that tend to become malignant. Girls and boys are afflicted in approximately equal numbers.

Age

Kerr[1] reports the average age as 3.4 years and other authors also confirm the finding that the greatest incidence of polyps in children is between two and six years, with a sharp drop in the second decade. This is explained, at least in part, by the phenomenon of spontaneous amputation. Leichtling and LeCaille[2] reported a 3 cm. polyp having been passed, and Kerr reported 18 out of 100 cases that passed polyps spontaneously. Ninety-eight of the 100 cases were under 11 years of age.

It is postulated that repeated traction on the polyp by the fecal stream develops a long pedicle which may become twisted. The result is gangrene of the mass and spontaneous separation.

Read before annual meeting of Tacoma Surgical Club, Tacoma, Wash., May 3, 1958.

Signs and Symptoms

Blood in the stool is the cardinal sign of polyp, being present as bloody mucous mixed with the stool or streaked on the outside with massive hemorrhage occurring occasionally. Protrustion of a fleshy mass from the anus may be observed by the mother. Diarrhea is a symptom in approximately 20 per cent, being more common in the presence of multiple polyps.

Abdominal cramps of varying severity may be prominent in the symptoms, from mild, intermittent abdominal discomfort to the severe picture of intussusception, where a polyp is the leading point, located usually in the ileum. Unusual distribution of melanin pigmented spots on the oral mucosa, lips and digits may suggest intestinal polyposis.

Hemoglobin is usually normal in spite of the repeated small blood losses. Other laboratory findings are usually unaltered.

Diagnosis

The most valuable diagnostic procedure is sigmoidoscopy. In children over two years of age the standard 2 cm. diameter, 26 cm. length instrument may be used. Approximately 75 per cent of the colonic polyps may be visualized in the lower 25 cm. of the large bowel. Needless to say, a gentle, skillful aproach is necessary even in a cooperative child. General anesthesia should be resorted to in an uncooperative or frightened child as instrumental perforation is a real hazard.

Roentgenologic examination of the colon, using air contrast study, also taxes the patience and skill of the radiologist. About 25 per cent of colonic polyps will be found above the lower 25 cm. of colon. Careful preparation, preferably with castor oil, results in the most satisfactory examination. X-ray investigation should be car-

ried out in all cases, not only to search for polyps above reach of the sigmoidoscope when sigmoidoscopy is normal, but to identify multiple polyps which will be present in about 13 per cent.

Pathology

Size varies from a 1 mm. elevation to a 5 cm. mass. The majority of polyps over 1 cm. in diameter occur on a pedicle. Pedicles vary in length from a millimeter or two to several centimeters. At times the presence of a long pedicle makes a polyp very elusive and adds to the difficulties of definite localization. The pedicle is nearly always of normal mucosa and is thought to be the result of traction from peristaltic action.

In children below the age of puberty, almost all polyps are benign histologically. An occasional adenoma will be diagnosed as carcinoma in situ or grade 1 adenocarcinoma, but invasive carcinoma is rare. From 100 cases of colonic polyps, Kerr reported one case of adenocarcinoma of the rectum in a boy of 12 whose stools had shown bloody mucous since age 3. Gordon and others reporting on 104 cases had 9 with carcinoma in situ, none with invasive carcinoma.[3]

For purposes of formulating a plan of treatment, it is convenient to classify adenomatous polyps into several groups according to number, position and heredito-familial tendencies.

The first is the Jegher's Peutz syndrome, in which there is a diffuse gastro-intestinal polyposis, associated with pigmented spots of the oral mucosa, lips and digits. This has a definite familio-hereditary tendency and is quite rare. Melanin spots apparently are present from birth or early childhood. There is extensive scattered polyposis with the most common site being the small bowel, but also showing polyps in the colon and often in the stomach. They occur singly or in groups of two to several, to diffuse involvement.

Secondly are those with gastro-intestinal polyposis similar to the above group but without the melanin pigmentation or familio-hereditary component.

The third group is that of familial polyposis confined to the colon which seems to be a separate entity. It is thought to be due to a gene mutation inherited as a Mendelian dominant characteristic which may be transmitted by either sex. Polyps are confined to the colon and may range in number from eight or ten to literally hundreds. Size varies from a few millimeters to several centimeters. The more numerous polyps tend to occur in the older age group, most extensively being present in young adults. Various authors have pointed out the potential seriousness of this disease by showing the development of carcinoma in the young adult. Dockerty states that 50 per cent of these patients will be dead by age 30 years and nearly all by age 50 years from carcinoma of the colon, if untreated.[4] However, the development of carcinoma before puberty is very rare.

Other members of the family should be examined for the disease whenever any of the above forms of diffuse polyposis are encountered.

Much more commonly encountered are single or few polyps, setting an arbitrary number of under 10.

Treatment

Removal of polyps is advised to alleviate symptoms of bleeding, diarrhea and cramps, and to remove a potential malignancy. The latter, while not emergent in the young child, becomes more urgent as puberty is approached.

All polyps within reach of the sigmoidoscope should be destroyed. Polyps 1 cm. in size or larger may be removed in several ways. If in the lower rectum and pedunculated, they may be pulled down, the base ligated and amputated. The electric snare may be used similarly or through the sigmoidoscope. Most authors advise confining the use of the electric snare to the area below the peritoneal reflection for fear of perforation. Fulguration with the mono-polar electrical unit is most satisfactory for all small lesions and lesions above the peritoneal reflection.

For colonic polyps lying above the reach of sigmoidoscope, laparotomy is necessary. Because of the low incidence of carcinomatous degeneration of adenomas in children, it is felt that in isolated, pedunculated polyps, transcolonic polypectomy is adequate.

The sessile polyp with its broad base and uncertain central histologic growth pattern requires segmental resection of that part of the bowel bearing the neoplasm.

It is difficult to draw an arbitrary line between occasional multiple polyps and the early phases of diffuse polyposis. Therefore, in order to avoid repeated operation or unnecessarily extensive surgery in a child with polyps above the reach of the sigmoidoscope and yet where a definite diagnosis between isolated polyps and diffuse polyposis cannot be made, it may be wise to

defer operation for a few years. If more extensive polyposis should develop during this period of repeated examination, the diagnosis would be clarified. Other symptoms, such as bleeding, pain and diarrhea, may favor earlier intervention, but in any case these patients should be operated by age 12 years.

In both types of gastro-intestinal polyposis, preferred treatment is removal of polyps located within reach of the sigmoidoscope by fulguration or electric snare. For growths above the reach of the sigmoidoscope, in the colon, small bowel, or stomach, laparotomy with trans-enteric removal of isolated polyps is used. Resection of the polyp bearing area is best if several are present.

If the patient has extensive, diffuse polyposis of the entire gastro-intestinal tract with few symptoms, it is best to manage conservatively, meeting the problem presented by symptoms as they arise.

Colectomy

Diffuse polyposis coli, the third group with diffuse lesions mentioned above, requires colectomy. Colonic resection may be carried out whenever the diagnosis is definitely made. Growth and development after colectomy have been reported as normal even at age of five or six years. Because of the extent of colonic and rectal involvement, good argument for total colectomy and establishment of an ileostomy can be made. However, to avoid the disability and morbidity associated with ileostomy, many authors have advised subtotal colectomy with establishment of an ileo-rectostomy. This, I believe to be the preferred treatment. Destruction and removal of polyps of the rectum by fulguration prior to subtotal colectomy is favored. End-to-end ileo-rectostomy, leaving approximately the lower 3/4 of rectum so that subsequently the remaining portion of the rectum may be easily visualized through the sigmoidoscope, is very important. The parents of these patients, and the patients themselves as they become responsible, must be impressed with the necessity of repeated sigmoidoscopic examinations at six month intervals to identify and destroy any new polyps that may occur. Without this cooperation, the risk of developing carcinoma of the rectum is a real threat.

At the time of exposure of the colon, careful search should be made for undetected polyps. In a well-prepared bowel these may be palpable through the colonic wall, but a further aid is the introduction of a sterile sigmoidoscope into the colotomy wound and visualization of the interior of the bowel. On one occasion, when the sigmoidoscope light burned out during such a procedure, the examination was completed after darkening the room except for a spotlight on the field. The interior of the bowel, as seen through the sigmoidoscope, was trans-illuminated. The result was very pleasing in that polyps, because of their increased density, were easily visualized and identified.

Whatever the stimulus was that produced an adenoma, it can be assumed to still be present in the patient after the growths have been removed. Yates has reported that new polyps occur in 10 per cent of cases.[5] Therefore yearly follow-up examinations are advised.

Summary

It behooves all of us to search diligently for possible polyps in any child with blood in the stool, diarrhea, recurrent abdominal cramps or history of mass prolapsing from the anus. In addition to ordinary history and physical examination, sigmoidoscopy and contrast air study of the colon are necessary.

Some polyps will be passed spontaneously; this may account for inability to find a polyp even though symptoms suggested its presence. However, only after repeated examinations should this assumption be made.

Isolated polyps within reach of the sigmoidoscope should be removed, when identified. The young child with several polyps in the colon above this level and with minimal symptoms may be observed for a year or so to determine if diffuse polyposis will develop requiring total colectomy rather than polypectomy.

Incidence of malignancy in adenomas increases at puberty. Therefore, definitive operation should be carried out before this age is approached. •

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Tetany

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Tetany is a disorder characterized by neuromuscular hyper-excitability on the basis of decreased ionized calcium in the blood. It may be latent, in which case it may be demonstrable only by mechanical or electrical stimulation. There may be no symptoms, although restlessness, numbness or tingling in the extremities, or other paresthesias may be present. The condition may gradually progress through its own potentiality or under stimulation of emotional, environmental, or physiologic change. Acute infection, especially if accompanied by a high fever, may easily precipitate manifest tetany. The most characteristic signs are carpopedal spasm, laryngospasm, and convulsions.

Ordinarily the signs of tetany are so characteristic that they may rarely be mistaken for any other condition. Perhaps the most important factor in the diagnosis is for the examiner to think of it.

Signs

Suspected tetany may be confirmed clinically by the presence of a positive Chvostek's sign. This consists of contraction of the facial muscles when the area over the facial nerve is tapped just anterior to the external auditory meatus, or in the middle of the cheek. This sign may be positive in a newborn infant but, if it occurs after the age of 2 months, it is almost pathognomonic of tetany. The peroneal sign has the same significance as the Chvostek sign, and it may be elicited, even in the crying child, by tapping the peroneal nerve just below the head of the fibula. A positive peroneal sign consists of flexion of the toes and adduction of the foot.

Trousseau's sign is frequently absent in tetany but, when present, is pathognomonic. It consists of typical position of carpospasm when the upper extremity is constricted by a blood pressure cuff, or of pedalspasm when the lower extremity is similarly constricted.

Erb's sign is less frequently used but is, perhaps, the most reliable clinical sign of tetany. It consists of increased sensitivity of the nerves to electrical stimulation. Apparatus consists of a source of direct current (several dry cells in series), a rheostat, and a 10 milliampere meter, suitably calibrated, connected in series. A large electrode moistened with salt water is placed on the abdomen, and the stimulating electrode is placed over the nerve to be tested (usually the peroneal). In the normal individual the cathodal opening current required to produce reaction is more than 6 milliamperes, whereas the response in an individual having tetany may be obtained with less than 5 milliamperes.

Symptoms

Symptoms of manifest tetany are similar in all age groups, though certain symptoms, such as laryngospasm and convulsions, are much more common in children less than 2 years of age. Symptoms are also the same regardless of the type or etiology of tetany.

Typical symptoms are carpopedal spasm, laryngospasm, and convulsions. Carpopedal spasm is typical and striking. The hands are usually affected first. The phalanges are extended, and the fingers are flexed at the metacarpophalangeal joints. The thumbs are adducted and the wrists are flexed. The feet are dorsiflexed; the toes are flexed at the metatarsophalangeal joints; and the phalanges are extended. Occasionally the muscles of the legs, thighs, trunk, or arms may be involved. There may be twitching or fibrillation of the muscles of the face. Spasms may be accompanied by varying degrees of pain. Carpopedal spasm may not always occur but, if present, is pathognomonic.

Laryngospasm is frequent, especially in children. The typical crowing inspiration occurs with partial obstruction of the larynx. This sound may be identical to that heard in whooping cough, which must be considered in the differential diagnosis. Other causes of respiratory ob-

struction, such as croup, laryngitis, foreign body, and breath holding, must be searched for and ruled out. With greater degrees of obstruction, cyanosis occurs, and the child may lose consciousness.

Convulsions may occur in any age group, but are seen much more frequently in children under 2 years of age and especially in those less than 1 year old. Convulsions may be the only symptom of tetany. It is extremely important that a thorough search for other causes for convulsions be made. The physician must consider particularly tetanus, poisoning, and encephalitis, but he must not forget the acute infections, meningitis, intracranial lesions or hemorrhages. Occasionally a convulsion will be precipitated in a child who has latent tetany by a relatively benign stimulus, such as overeating. This reaction has been seen several times in my practice, particularly if the latent tetany was on the basis of gastro-intestinal disease. One very striking example was seen in a 6 year old child who had an untreated fibrocystic pancreatitis and who developed a severe and prolonged convulsion after eating several ears of corn.

Most often the family physician may see the patient in the home, or in the office, where there may be no facilities for elaborate diagnostic studies. In these circumstances he must rapidly care for the serious complications, such as respiratory obstruction or convulsions. Knowing the circumstances under which the patient lives, and knowing the general health of the patient, as he usually does, the family physician may rule out immediately certain etiologic factors underlying the disorder. The history and general observation may, almost certainly, pin-point the type or cause, but frequently more information is needed.

Since successful treatment should be preceded by the most accurate diagnosis possible, a brief résumé of the etiologic factors will be presented.

Etiology

Primarily, tetany is due to decrease of ionized calcium in the blood. This decrease may occur for a number of reasons:

1. *Inadequate intake or absorption of calcium* —As a rule, sufficient calcium in the diet from the ingestion of milk will preclude the development of tetany, but in the case of phosphate retention tetany (as shall be seen), an excess of milk may precipitate the disorder because it contains a relatively large amount of phosphorus. Inadequate absorption of calcium is characteristic of rickets. Importance of adequate vitamin D intake need not be discussed at this time. Steatorrhea or pancreatitis is associated with the faulty digestion of fats. The undigested fat particles or the fatty acids produced by the digestion of tissue fat, as in pancreatitis, combine with the calcium to form soaps which are insoluble and thus are not absorbed.

2. *Excessive excretion of calcium* may occur as a result of frequent or prolonged lactation. Nephrosis is associated with excretion of large amounts of protein, and calcium may be lost in the form of calcium proteinate. As shall be noted, there may be sufficient ionized calcium present in this condition to prevent tetany even though total blood calcium may be low.

3. *Increased phosphorus retention* is seen in hypoparathyroidism, nephritis, renal insufficiency, or when there is excessive phosphorus intake. The acidosis occurring in the renal conditions is usually associated with rather mild tetany, however, because acidosis favors ionization of calcium. Because of the reciprocal relationship between blood calcium and blood phosphorus, the calcium level is reduced when the phosphorus level is elevated.

4. *Alkalosis* may foster development of tetany by depressing ionization of calcium in the blood. In the presence of alkalosis, insoluble calcium salts are more easily formed in the intestine, making absorption of calcium difficult. Alkalosis may be caused by excessive intake of alkaline salts, such as sodium bicarbonate, or by excessive excretion of acid. Hyperventilation, usually occurring in cases of hysteria or encephalitis but seen also in crying babies, may lead to the loss of carbonic acid by carbon dioxide excretion through the lungs (respiratory tetany). Excessive loss of gastric acidity because of vomiting, continual gastric suction, or excessive gastric lavage may lead to the so-called gastric tetany.

If the patient is seen first in the home, it is necessary to administer any emergency care which might be necessary, especially where there is obstruction of the respiratory tract or if convulsions are present. Usually it is possible to develop, within a relatively short time, a high index of suspicion as to the etiology of the condi-

tion. If the condition does not appear to be particularly serious, it frequently suffices to offer suggestions as to diet, to offer a mild sedative (except in children with respiratory involvement), to prescribe an acidifying salt, such as ammonium chloride, or to give an oral calcium preparation until such time as the patient is able to come into the office, laboratory, or hospital for further study. It is felt that a urine sample should be taken before the administration of calcium in order to estimate the calcium level by means of the Sulkowitch test which may be performed easily at the office.

If the patient is first seen at home, he is advised to come to the office for a complete examination, including the proper laboratory examinations. Hospitalization is rarely necessary unless convulsions, laryngospasm or other serious complications cannot be controlled readily.

Laboratory Findings

A simple estimation of the serum calcium level may be inferred from the urine calcium levels measured by means of the Sulkowitch test. This test is made as follows:

To 3-5 cc. of fasting urine add an equal amount of Sulkowitch reagent (2.5 Gm. oxalic acid, 2.5 Gm. ammonium oxalate, 5 cc. glacial acetic acid and distilled water, q.s. ad 150 cc.). Let this preparation stand 3 to 5 minutes before reading. No precipitate means that the serum calcium level is probably between 5 and 7.5 mg. per cent; a faint precipitate implies a normal serum calcium level, and a heavy precipitate is probably associated with a greatly elevated calcium level.

In tetany the serum calcium level is reduced to from 5 to 7.5 mg. per 100 cc. This finding is so constant that the diagnosis may be questioned if it is not present. The concentration of phosphorus may be low, normal, or high, except in parathyroid tetany in which it is regularly increased. The level of the serum calcium at which tetany occurs is influenced by the phosphorus level—i.e., tetany may occur at a serum calcium level of 7 if the phosphorus level is normal or low, but it may occur at a calcium level of 8 if the phosphorus level is high.

It is important to check the level of the total blood protein. About 50 per cent of the circulating calcium is bound to protein as a calcium proteinate. Therefore, it is possible in hypoproteinemia to have enough ionized calcium available to prevent tetany even though the total serum calcium is below the critical level. Other laboratory findings may be the prolongation of the Q-T interval, flattening of the S-T segments, and occasional other irregularities in the EKG. The electroencephalogram may show two to three slow waves per second. X-ray study may reveal a slight decrease in bone density and, occasionally, calcification of soft tissue.

Clinical Types and Treatment

There are several clinical types of tetany, the treatment of which may be somewhat different. Infantile (or rachitic) tetany includes the majority of cases seen in childhood, is associated with rickets, and develops under the same conditions. More than 80 per cent of the cases develop during the first two years of life, and the incidence after the third year is relatively low. Clinical or x-ray evidence of rickets may be demonstrated in almost all cases of infantile tetany; however, a relatively small percentage of children with rickets develop tetany. The treatment should be that for the underlying rickets. It is important that active antirachitic therapy be deferred until the child has been given adequate calcium therapy for at least 24 to 48 hours in order to prevent aggravation of the tetany. Calcium therapy may be given orally in the form of calcium chloride. Being an acid salt, it also benefits by increasing the ionization of calcium. However, it is occasionally irritating to the gastrointestinal tract. Calcium lactate or gluconate may be used. Doses of 1 to 2 Gm. every four hours for two or three days are followed by the same doses given twice daily. If the tetany is severe or if convulsions are frequent, calcium gluconate is given intravenously. The dose is 5 to 20 cc. of a 10 per cent solution given by vein slowly and repeated two or three times if necessary.

Gastric and respiratory tetany are best handled by treating the underlying disorder. Vomiting must be controlled and the electrolyte balance re-established. This procedure may require hospitalization. In the meantime, intravenous calcium gluconate, given slowly, will control the symptoms of tetany. The symptoms of the respiratory form of tetany may usually be controlled by re-breathing carbon dioxide from a paper bag. If encephalitis is causing hyperventilation, the

patient should be hospitalized where better observation and treatment are available.

Tetany of the newborn is apparently on the basis of a physiologic decrease in the function of the parathyroid glands compensatory to the hyperparathyroidism of the mother seen occasionally during the last trimester of pregnancy. The condition is found more commonly in the artificially fed baby because of the higher percentage of phosphorus in cow's milk. Oral calcium is generally sufficient to control symptoms though, occasionally, intravenous calcium gluconate is necessary. Dilute solutions are given by gavage. It is occasionally necessary to intubate the trachea to combat laryngospasm. Vitamin D is given, and dihydrotachysterol (Hytakerol) may be considered if the patient's response is not prompt. Milk preparations which simulate the phosphorus content of mother's milk should be fed to the baby rather than cow's milk.

Parathyroid tetany is usually caused by the inadvertent removal of the parathyroid glands during surgery, or because of their injury.

Treatment of parathyroid tetany must include immediate care of the convulsive seizures and laryngospasm. Specific therapy includes the slow administration of soluble calcium salts, such as calcium gluconate, in doses of 10 to 20 cc. of a 10 per cent solution. Oral calcium should be given in a form which contains little or no phosphorus. Calcium gluconate, lactate, or chloride are used most commonly though there are many other available preparations. Calcium chloride might produce gastrointestinal irritation. Calcium gluconate or lactate is given in doses of 4 Gm. three or four times daily. Occasionally, higher doses may be necessary. It is helpful at times to administer dilute hydrochloric acid in order to promote absorption of calcium. Magnesium sulfate may be given slowly, intravenously, in extreme cases as an emergency measure.

Effective Therapeutic Preparations

Parathyroid hormone may be administered as a temporary measure—usually in postoperative tetany—but this preparation should be reserved as a final measure in most cases because its effects diminish as a result of the formation of antihormones by the body. It is given subcutaneously in doses of from 10 to 100 U.S.P. units daily in single or divided doses.

Dihydrotachysterol (A.T. 10, Hytakerol) is an effective synthetic, having properties resembling those of the parathyroid hormone. It raises and maintains blood calcium levels and stimulates renal excretion of phosphorus. Unlike the parathyroid hormone, its efficiency is not decreased by prolonged use. The dosage must be carefully controlled by determinations of the blood and urine calcium levels. Initial doses are 3 to 10 cc. or from 6 to 20 capsules daily for several days, followed by maintenance doses of from 1 to 7 cc., or 2 to 14 capsules per week depending on the blood and urine calcium levels.

Vitamin D therapy is quite effective and somewhat less expensive for the patient than is dihydrotachysterol. Vitamin D increases intestinal absorption of both calcium and phosphorus, but it also stimulates renal excretion of phosphorus. The dose is 50,000 units given in capsule form one to three times daily. Occasionally, much higher doses are necessary.

Aluminum hydroxide in doses of 0.5 to 1.5 ounces given three times daily after meals has the effect of binding dietary phosphorus and thus decreasing its absorption.

Thyroid (desiccated) is of particular value in post thyroidectomy tetany. When hypothyroidism is present, desiccated thyroid has an effect upon the absorption of calcium from the intestinal tract. Usually 1 or 2 grains of thyroid daily (60 to 120 mg.) will suffice.

Probenecid (Benamid) is said to assist in promoting renal excretion of phosphorus, and may be useful in treatment. It may be given in doses of from 1 to 4 tablets daily.

Dietary management consists of the restriction of foods containing phosphate. These foods include dairy products primarily.

Determination of blood calcium should be done several times a year if control is satisfactory, and more frequently if control is difficult. The patient may be taught to test urinary calcium levels by means of the Sulkowitch test.

The prognosis is good in well controlled patients in whom serum calcium can be maintained within normal limits. In patients with long-standing disease, and especially in poorly controlled patients, trophic changes may occur. These changes include thickening of the skin; thinning and loss of hair; brittleness, furrowing, or loss of the nails; furrows, staining, and defective enamel of the teeth; mental retardation; and the frequent occurrence of lenticular cataracts. •

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Use of Anorexigenic Agent in a Weight Reduction Clinic

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During the past year, an obesity clinic has been developed in the outpatient department of King County Hospital, Seattle, to establish a complete program for treatment of problem obesity cases referred by other specialty clinics. Such a clinic permits clinical evaluation of weight reduction techniques of which anorexigenic agents are a part. The majority of patients are studied in a general medical clinic prior to referral, so that patients with metabolic disorders such as Cushing's disease and myxedema are screened out prior to entering the obesity clinic. In addition to treatment of the obesity problem, all medical complications such as arthritis, hypertension, diabetes and heart disease are treated concurrently in the over-all program.

Program

During the year, one physician (the author) treated and followed all the patients reported in this study. The concept developed and conveyed to the patient is that obesity is a medical disorder which can be controlled but not cured by known medical methods. A four-point program of weight control is offered to each patient. (See figure 1.)

1. Food Plan. An overweight patient seldom

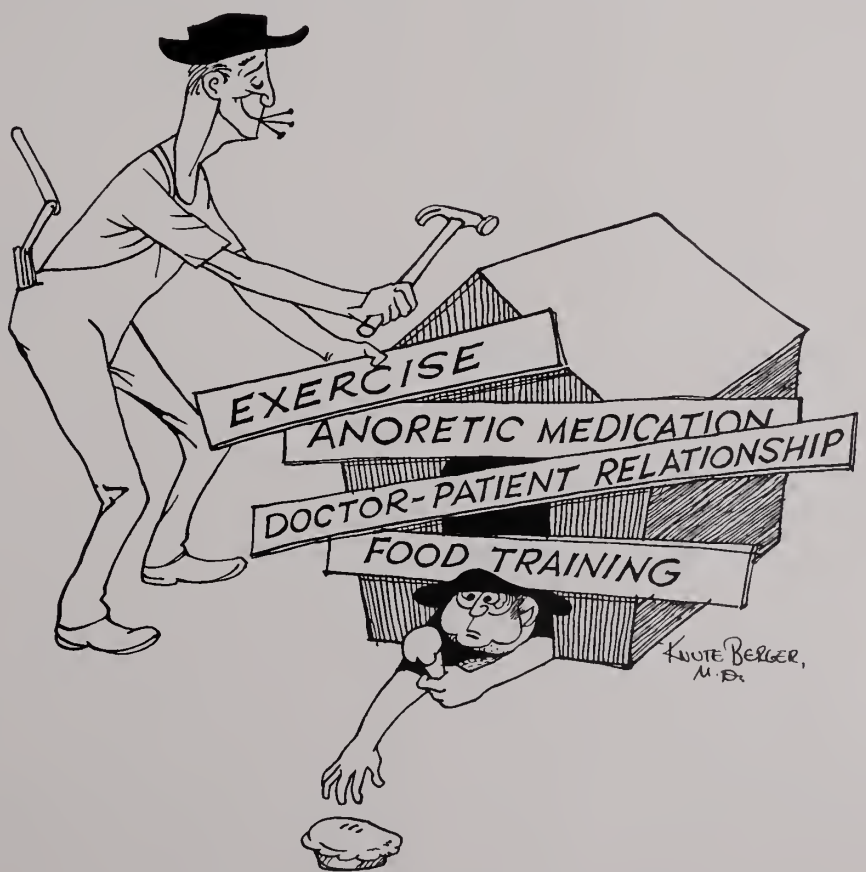


Fig. 1. Tools the doctor has at his disposal for weight control.

seeks a physician primarily to obtain advice concerning food. He knows he has to eat less to reduce; yet he hopes the doctor has an extra "ace up his sleeve" which will permit weight reduction without the pangs of semi-starvation. Thus, if the physician approaches the food problem simply by saying, "Don't eat too much" or if he chastises the patient for being a glutton and warns him of the great danger to his health, he only creates a sense of guilt in the patient and accomplishes nothing.

It has been my policy to tell the patient at the very beginning that the weight reduction program does not include a starvation regimen, but rather a return to a normal way of eating. This includes three meals a day with instructions to save snacks from lunch and dinner to satisfy hunger peaks during late afternoon and night, if necessary. Further, the patient is reassured that, while adjusting to a new way of eating, he will be given a medication which is safe and will help him adhere to his food plan by suppressing his appetite. With these preliminary remarks, the eating habits are explored. If, during the history-taking, the patient states that he eats practically nothing or only half as much as other members of the family, the physician must not act dumbfounded and question the patient's honesty. At subsequent visits when the doctor-patient relationship is more firmly established, details of dietary indiscretions will usually appear. For example, one woman who was failing to lose subsequently stated that she always ate three to four apples a day but didn't count them in her food plan because she had always been told how good they were for her health!

The Food-Exchange System was used exclusively and explained to the patient using the illustrated pamphlet entitled, "Meal Planning with Exchange Lists" available through the American Dietetic Association.* Since this plan gives a wide variety of food choices without calorie counting, most patients like it. In general, the diets varied between 800 and 1100 calories per day, high in protein and low in carbohydrate and fat. The usual fat content per day was approximately 40 Gm.

2. *Exercise.* Increase in energy output, if physically possible, is a basic principle in weight reduction.[1] Each patient is advised to take a one-half hour walk twice a day. In addition, in the younger age group, muscle training exercises are prescribed. Improvement in posture is stressed for its cosmetic effects to overcome the rounded shoulders, lumbar lordosis and prominent buttocks of the obese person.

3. *Doctor-Patient Relationship.* Regular visits to the clinic every two to four weeks are insisted upon. The role of the physician as counselor, advisor and friend cannot be over-emphasized. The overweight patient needs the continuing support of his physician. During these regular visits, weight and general body measurements are recorded and a graph sheet of the patient's progress is kept up-to-date. General health problems are resolved, dosage of medications adjusted, and a dietician is revisted from time to time. The encouragement and moral support through these regular follow-up visits must be underscored as probably the most important phase of a successful weight reduction program.

4. *Medication.* The overweight patient, who seeks a physician's advice, consciously or unconsciously hopes to obtain two things. First, he seeks the discipline and sympathetic understanding which a physician can render. He does not wish to be treated as a behavior problem or to be ridiculed or frightened by his plight. Second, most hope to obtain a medication which will be safe while magically accomplishing weight reduction. Of course, there is no such thing as a magic medication available.

If a medication is used to suppress appetite, it must be explained to the patient at the outset that it is only an adjuvant in the total weight reduction program and not, in itself, the answer to his problem. Despite statements to the contrary, anorexic agents *do* have a place in the total weight reduction program. In a majority of patients, amphetamine consistently taken in proper doses will result in greater weight losses than occur when such medications are omitted. There are limitations to the usefulness of anorexigenic drugs, however. For example, anorexigenic agents are of practically no value in the markedly compulsive eater who eats whether he is hungry or not. For this latter group, there is at present no consistently successful treatment.

The purpose of any medication in a weight reduction program is to offset the symptoms so common following food withdrawal. These are anxiety, fatigue, depression, hunger, lack of energy and irritability. An effective anorexigenic agent should offset these symptoms in the majority of patients, and at the same time have a minimum of side reactions. Thus, if the agent is effective, the patient should be better able to

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consume a lower caloric intake and feel well at the same time. The medication selected for use and study in the clinic was Ambar.** It is supplied in two forms: compressed tablets and extended action tablets. The tablet contains 3.33 mg. of methamphetamine hydrochloride and 21.6 mg. of phenobarbital. The extended action tablets contain 10.0 mg. of methamphetamine hydrochloride and 64.8 mg. of phenobarbital.

Method of Study

For the first six months the anorexic agent was studied by the double blind technique. Neither the physician nor the patient was aware of whether the real medication or placebo was being taken at any given time. Even-numbered patients were given a placebo and odd-numbered patients were given the preparation by the pharmacist. The records were kept in the pharmacy. Every fourth week, the pharmacist, by previous agreement, automatically switched from one to the other. Forty-one patients, averaging 52 lb. overweight were studied by this method; they ranged from 11 to a maximum of 147 lb. overweight. The usual dose during the double blind study was one extended action tablet before breakfast and one compressed tablet at 4 p.m. The patients were followed for a minimum of 4 weeks on the medication and 4 weeks on placebo with a maximum of 12 weeks on each.

Results of Double Blind Study

Forty-one patients were studied and, of this number, 27 patients, or 65.8 per cent, averaged a loss of 1.36 lb. per week while taking Ambar. The same 27 patients lost 0.60 lb. per week while on placebo. Thus, 65.8 per cent of the patients studied on the double blind technique lost more than twice as much weight per week while on the medication as on placebo. Fourteen patients either gained weight while on medication or lost more weight while on placebo.

Since it is difficult to manipulate dosage in a double blind study, it was decided to continue the investigation for a second period of six months. During this period, the Ambar doses were increased for those patients who were failing to lose weight on the initial dosage. The medication was timed by the patient and taken at specific times of day to offset hunger peaks. Dosage was thus individualized according to the patient's response.

**Preparations used were supplied by the A. H. Robins Company, Richmond, Virginia.

Of the 41 patients studied with the double blind technique, 11 were continued into this phase of the investigation with the addition of 39 new patients, for a total of 50 patients. This group was studied for a minimum of 4 weeks to a maximum of 32 weeks. Of these 50 patients, 3 either failed to lose weight, or gained, and 3 patients stopped the program because of adverse side reactions to the medication, which will be described subsequently. The 44 patients who successfully lost weight lost a total of 800 lb., or 18.4 lb. per patient. They averaged 1.16 lb. per week weight loss. Seventeen patients lost from 1 to 10 lb., 10 patients from 11 to 20 lb., 7 patients from 21 to 30 lb., 6 of the patients from 31 to 40 lb., 2 patients from 41 to 50 lb., 1 patient 55 lb., and 1 patient 67 lb. (Fig. 2).

The usual starting dosage was 1 extended action tablet before breakfast and 1 plain tablet at 4 p.m. Nine of the successfully reducing patients stayed on this dosage. For 16 patients, the dosage was increased to one extended action tablet in mid-morning and one in mid-afternoon. This seemed to be the most popular dosage for control of appetite. Six patients took 1 extended action tablet before each meal, and 4 patients took between 4 and 6 per day without any unusual side effects. Seven patients took one plain tablet before each meal.

Ambar is particularly free of serious side effects in the large majority of patients but, as can be seen from the wide spread in dosage, the doctor must manipulate the dosage according to individual response. It seems that the majority of patients require more than 1 extended action tablet and 1 plain tablet a day, since the majority took 1 extended action tablet two or three times a day to control hunger and appetite.

Side Reactions

Only 4 patients out of the total of 80 treated during both the double blind study and the subsequent study stopped the medication because of adverse reactions. One patient, who had angina pectoris, after some weeks on Ambar began to complain of diarrhea, heart flutter, and abdominal pains occurring within a half-hour after taking an extended action tablet and refused to take any more. A 73-year old woman stopped medication within 1 month because of nausea and increased nervousness. A 30-year old woman complained of persistent indigestion and nausea on 1 plain tablet, three times a day. An 18-year old woman stated that her appetite

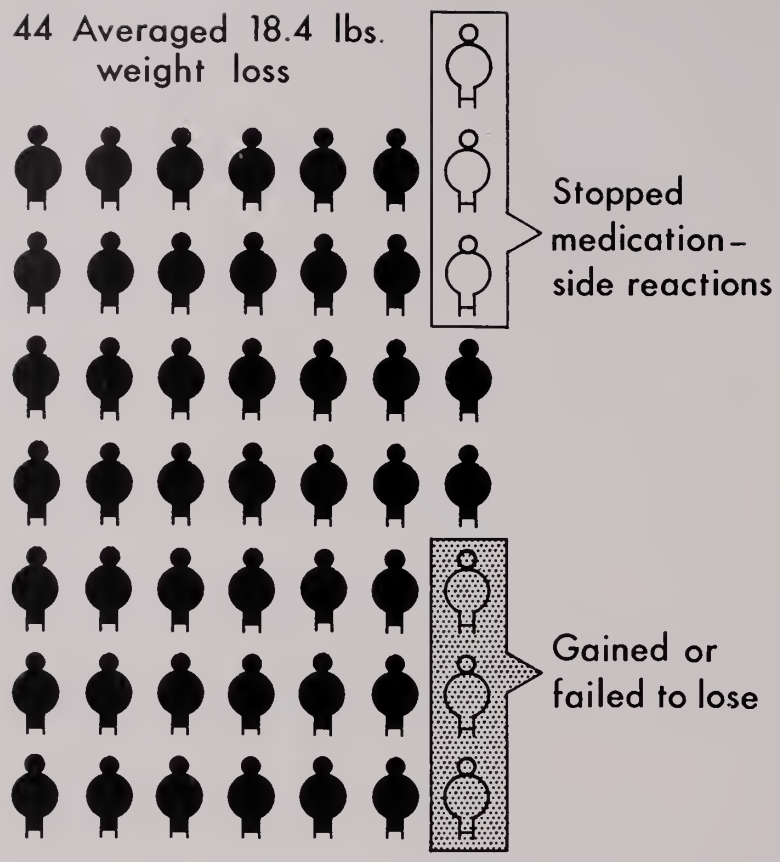


Fig. 2. Summary of weight control program in 50 patients in whom Ambar dosage was individualized. Side reaction rate for the total 80 patients studied was only 5 per cent.

was stimulated and that she was less hungry without medication. Thus, of the 80 patients who were treated both on the double blind studies and on the subsequent studies, only 4 stopped because of adverse reactions which is 5 per cent of the total patients observed.

Hypertension

The most common co-existing disease state in these obese patients was hypertension. Twenty-seven of the 50 patients studied had hypertension of significant degree. Parenthetically, there was no particular correlation between successful weight reduction and reduction in hypertension, that is, 14 of the 27 patients who had hypertension had no appreciable reduction in blood pressure while under this study. In no instance was there an *adverse* effect on hypertension while taking Ambar. Four patients had diabetes, and, as would be expected, there was improvement in the diabetic state as result of weight reduction. One patient with a duodenal ulcer tolerated medication very well. Three patients with cholelithiasis reduced weight successfully while on the program and subsequently underwent cholecystectomy.

Follow-up Care

Obesity, like diabetes, is not cured, but controlled. Thus, after attaining normal weight, the patient must be taught how to maintain it. It is unusual for him to lose his excessive desire or compulsion to eat just because he has been on a weight reduction program. The person who tends to gain weight never loses the tendency. Only rarely does a patient who has successfully reduced say: "I no longer have the desire to eat that I used to." Those patients whose appetite is successfully suppressed by an anorexigenic agent often wish to continue taking it intermittently even after normal weight has been attained. They particularly desire to use it when under nervous strain. It is during such a period that the compulsion to eat seems to be greatest.

With these things in mind, the following principles have been established in follow-up care:

(1) The food plan, high protein, low fat, low carbohydrate, and calorically adjusted to individual needs, must be life-long.

(2) The patient must maintain his enthusiasm for normal weight by continuing to be weight-conscious. He should weigh once weekly.

(3) He must see the physician at intervals of every three months for at least a year after normal weight has been maintained.

(4) An anorexigenic agent may be prescribed intermittently to help control appetite. It should be taken during periods of stress or when the patient notices weight beginning to creep up again. Saturdays, Sundays and holidays particularly seem to encourage over-eating.

(5) Physical activity should be maintained just as during the weight reduction program.

Summary

A four-point weight reduction program in a hospital out-patient clinic includes the food plan, medication, exercise and doctor-patient relationship.

In a double blind study with Ambar, the average weekly weight loss on the medication was more than twice that for a placebo (1.36 as compared to 0.6 lb.).

Fifty patients were studied subsequent to the double blind test, and during the period of observation from 4 to 32 weeks, 44 of the 50 patients lost a total of 800 lb., or 18.4 lb. per patient with a maximum of 65 lb. in one patient. The average weight loss per week with these patients was 1.16 lb.

Dosage must be manipulated to suit the individual patient. The most frequent dosage was one extended action tablet at 10 a.m. and one at 3 p.m.

Only four patients (5 per cent) out of the total of 80 patients studied had to stop the medication because of adverse side reactions.

Patients with hypertension show no elevation of blood pressure related to the ingestion of the medication. •

1345 Medical-Dental Bldg. (1).

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The Right To Defend

We often hear that government—a collective linked to a police force—has the function of doing for individuals that which they cannot do for themselves. This is correct in a sense, but is open to easy misconstruction. The individual cannot protect himself against pirates or mobs or organized thievery or countless other forms of destructive actions. Government should do for all of us *that which we have a right to do,* but cannot do, for ourselves.

However, we have no right as individuals to use [police] power against the productive or creative actions of others for the purpose of feathering our own or anyone else's nest. By the same token, we have no rights collectively to use [police] power for these purposes. To use a not too far-fetched example: At this juncture in our develpoment we probably would not freely donate enough funds to build a missile that would photograph the other side of the moon. There are among us some persons who want this done. They lack the resources to do it themselves. Therefore, they call on the constabulary to forcibly take the fruits of the labor of others in order to gratify their wish. All subsidies and all federal grants-in-aid, whether to farmers or business or to communities or to foreign countries, fall into this category—a misconstruction of the idea that government should do for us that which we are unable or unwilling to do for ourselves.

By Leonard E. Read in The Freeman, June 1958, Volume 8, pp. 8-9.

Newborn Infant Surviving Perforated Duodenal Ulcer

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Occurrence of peptic ulcers in infancy and childhood has been recognized for over a century. An increasing number of reports appearing in the literature, however, suggest that this lesion and its attended complications are not rare clinical entities.[1]

In an infant, peptic ulceration may be the cause of an acute abdominal emergency when perforation occurs. This publication has been prepared to illustrate the fact that perforation can occur in the first forty-eight hours of life and that prompt action by physician and surgeon can prevent fatal complications.

CASE REPORT

HISTORY. The infant was born spontaneously after normal gestation and uncomplicated 14½ hour labor at King County Hospital, Seattle, Wash., Sept. 4, 1956, the third child of a 27 year old white multipara. She weighed 6 pounds 14 ounces, was normal on physical examination, and required no resuscitation.

Oral feedings were started at fifteen hours of age. She suckled eagerly, but at 10 p.m. on Sept. 6, feeding was taken sluggishly, and she regurgitated the major portion. Some abdominal distention was noted. One meconium stool had been passed the previous day but none subsequently. At fifty hours of age, the patient was in obvious distress.

PHYSICAL EXAMINATION. She was irritable, with a shrill weak cry, and had rectal temperature of 102 F. A blotchy erythematous rash was present over the trunk and extremities, but no cyanosis was observed. Her respirations were 60 per minute, and grunting in character, but without visible retractions of the thorax. The lung fields were clear. The abdomen was tensely distended and superficial veins were prominent. Irregular surface contours over the abdomen suggested underlying distended loops of bowel, but there was no visible peristalsis. Palpation, though difficult because of generalized muscle spasm, revealed no focal guarding. The abdominal percussion note was not tympanitic. Hypoactive bowel tones were present. No obstructing masses were noted on rectal examination, but there was marked sphincter spasm. Moro and grasp reflexes were present. There were no apparent signs of dehydration or salt depletion.



Fig. 1. Roentgenogram of 2-day old infant demonstrating pneumoperitoneum.

DIAGNOSTIC STUDY. A rectal tube was passed to 8 cm. with no change in the degree of abdominal distention. Upright and A-P films of the abdomen were obtained which demonstrated large pneumoperitoneum on the upright film (figure 1). Abdominal paracentesis yielded 80 cc. of yellow milky fluid which contained bile. Microscopic examination of the fluid showed amorphous material, rare mesothelial cells, and gram positive cocci in chains. No pus cells were seen. Cultures of this fluid subsequently grew out non-hemolytic streptococci and Pseudomonas. Preoperatively the WBC was 11,400 with Hgb. 22.5 Gm.

SURGICAL PROCEDURE. After receiving parenteral aque-

ous penicillin, 150,000 units, procaine penicillin, 150,000 units, and streptomycin, 150 mg., the patient was taken to the operating room at 4:30 a.m. and anesthetized with ether. Cut down was done on the right saphenous vein, and infusion of glucose water started. The abdomen was opened through a midline incision revealing bile stained milky fluid in the abdominal cavity. Surfaces of parietal and visceral peritoneum were extensively covered with a thin friable membranous exudate which peeled easily. On the anterior aspect of the first portion of the duodenum a 1 x 1.5 cm. perforated ulcer was discovered. No other abnormalities were detected.

The duodenal perforation was repaired, and the peritoneal surfaces debrided of exudate and copiously irrigated with normal saline. The abdominal wound was then closed in layers after a drainage tube had been placed in the retroduodenal space.

Specimens of the peritoneal exudate submitted for pathologic examination showed bacteria, nondescript bile stained debris compatible with spilled gastrointestinal contents, and reactive inflammation. At the close of the operative procedure the patient received 60 cc. of whole blood.

POSTOPERATIVE COURSE. Following surgery she was placed in an Isolette with oxygen, nasogastric suction was started, and quantitative parenteral fluid balance regimen was instituted. Procaine penicillin, 150,000 units, and streptomycin, 150 mg., were given daily, parenterally, for a total of seven and twelve days respectively.

Bowel tones returned forty hours after operation, and oral feedings of electrolyte-glucose water were started through the nasogastric tube. She began passing stools by the second postoperative day. Nasogastric tube was clamped between feedings, the intravenous fluids were discontinued, and the drainage tube was removed.

Dilute evaporated milk formula was begun on the third postoperative day. Initially, vomiting occurred after each feeding. For this reason fluids were withheld for six hours. Alternate gavage feedings of electrolyte-glucose water and dilute skim milk were resumed and retained. The next day the infant seemed improved and began taking regular formula by nipple. Progressive gain in weight and strength was noted thereafter.

Guaiac tests of the stools, intermittently positive for occult blood following surgery, were negative after thirteen days. She was discharged October 4, weighing 7 pounds 8 ounces.

CONVALESCENCE AND FOLLOW-UP. Examination at six weeks of age showed her to be making a satisfactory recovery except for delayed healing of the abdominal incision. She was readmitted to the hospital at nine weeks of age because of superficial dehiscence of the laparotomy scar. Serous discharge was present. Probing revealed remnants of subcuticular sutures giving rise to a granulomatous foreign body reaction. Following removal of the sutures, the wound was debrided and cauterized.

Upper G.I. series at this time showed normal stomach and esophagus. The duodenal bulb, however, was deformed, irritable, and did not fill well with contrast medium. No ulcer crater was demonstrated. Physical examination being otherwise normal, she was discharged home the following day.

When examined January, 1957, the abdominal wound was well healed. At present the patient is twenty months old and in good health.

Discussion

Gastrointestinal ulceration in childhood has been receiving an increasing amount of attention. Although the etiology remains as obscure in infants and children as in adults, it is thought to be related to factors promoting increased secretion of acid and pepsin by the gastric mucosa associated with increased susceptibility of the gastric and intestinal mucosa to autodigestion.

Kiesewetter,[2] reviewing the literature, has called attention to the work of Cushing and others which suggests relationship between central nervous system dysfunction and the occurrence of gastrointestinal ulceration or perforation. Intracranial disorders resulting from trauma or anoxia, neoplasms, and phychic stresses are all factors which have been implicated. The exact mechanism by which they contribute to ulcer formation is still not clearly understood.

Alexander[3] cites literature which suggests that vascular occlusion or spasm from birth trauma and the effects of bacterial toxins may have a role in ulcer production. Local factors also have received consideration. Russell[4] felt that hydrostatic pressure or direct physical forces upon the intestine at the time of birth could cause spontaneous rupture. Perforation can also occur when a congenital defect in the gut musculature exists, and Herbut,[5] in 1943, first described such a lesion in the stomach of a newborn infant. Other lesions of this type have been reported subsequently.

Gastric acidity in early infancy was studied by Miller.[6] The data showed that values equal to those of adults are reached within twenty-four hours after birth. Acid secretion then decreased for about nine days, rising gradually thereafter. At the end of the first month, acidity had stabilized at a level below that of the adult. Such a study lends credence to the concept that the pathologic mechanisms operating in adults may also be implicated in children.

The relationship between emotional disturbances and peptic ulcers in children has been studied by Chapman and associates.[7] They found that the common denominator in their cases seemed to be conflict over unmet dependency needs. Maternal rejection was described. The children they reported, ages nine to twelve years, tended to be passive, subnormally assertive, and unable to be comfortable in expressing feelings of hostility or aggression. An endless need for affection and approval was evidenced by their being obliging and servile.

Goldberg,[8] studying twenty children with duodenal ulcers between the ages of seven and fifteen years, found that death of the father and worry over school examinations were significant precipitating stresses. Aye,[9] also, was impressed by the emotional difficulties present in the cases which he reported.

Engel and associates[10] studied an infant girl in whom a gastric fistula was established on the

fourth day of life. Though discouraging interpretive generalization, they report an interesting correlation between hydrochloric acid secretion and the behavioral state of the infant.

Bird and co-workers[11] reported a comprehensive study of peptic ulcers in 243 infants and children, thirty-eight of which were newborns. They emphasized that ulcers in the newborn period have certain special characteristics. The onset is mostly precipitous without recognizable premonitory symptoms. A majority are heralded by the sudden, fulminating appearance of hemorrhage, perforation, or both, and are usually fatal. With few exceptions the lesions are acute and without cellular reaction or bacterial invasion. In newborns, duodenal ulcers outnumber gastric ulcers in a ratio of 2:1, with males slightly outnumbering females.

Beyond the newborn period the disease becomes less fulminating in character, often with recognizable prodromata, and tends to follow a more benign course. Tudor[12] has reported a five month old male infant in whom an ulcer involving the superior distal portion of the duodenum was diagnosed by clinical symptoms and confirmed by roentgenograms. Successful treatment with conservative measures was possible.

The younger the infant, the more obscure are the clinical manifestations. Diagnosis in the newborn often depends upon a high index of suspicion. In general, non-specific indications of severe intra-abdominal disease are present. Early findings are fussiness and disinterest in feedings. Vomiting, painful crying, and abdominal distention follow. Respirations frequently become labored and grunting in character with cyanosis often present. Pallor and lethargy may signal that perforation or hemorrhage has occurred. In the latter instance the intra-abdominal fluid is often detected by percussion. Rectal examination is usually normal, although the stool guaiac test may be positive. Fever and leucocytosis may be absent. Shock, peritonitis, and serious disturbances in fluid and electrolyte balance may rapidly follow.

Whittico,[13] Lichtenstein,[14] and Stotts,[15] reporting perforated duodenal ulcers in newborn infants, emphasize that the most important diagnostic procedure is the roentgenographic demonstration of a pneumoperitoneum. In the surviving cases the upright x-ray of the abdomen served as the basis for initiating prompt surgical intervention. Bansmer[16] has called attention to the value of abdominal paracentesis as an additional diagnostic aid. There is common agreement that a perforated viscus in an infant is a surgical emergency requiring prompt exploratory laparotomy to establish the location of the lesion and close the defect.

Survival of the patient is attributed to the following factors: 1) early recognition of disease confirmed by approximate x-ray studies; 2) prompt surgical intervention with closure of the defect; 3) inspection of the abdominal organs to rule out multiple ulcers or other defects; 4) careful debridement of foreign material and irrigation of peritoneal surfaces before closure of the abdomen, and 5) attention to supportive measures including blood replacement, antibiotics, and careful administration of fluids and electrolytes.

Summary

A female infant, delivered normally by multiparous mother, developed signs of intra-abdominal disease at 50 hours. Roentgenogram showed pneumoperitoneum. Closure of perforated duodenal ulcer was accomplished at operation six hours after onset of symptoms. X-ray examination six weeks after surgery indicated irritability of duodenum. The patient was in good health at 20 months. •

Child Health Center U. of W. (5).

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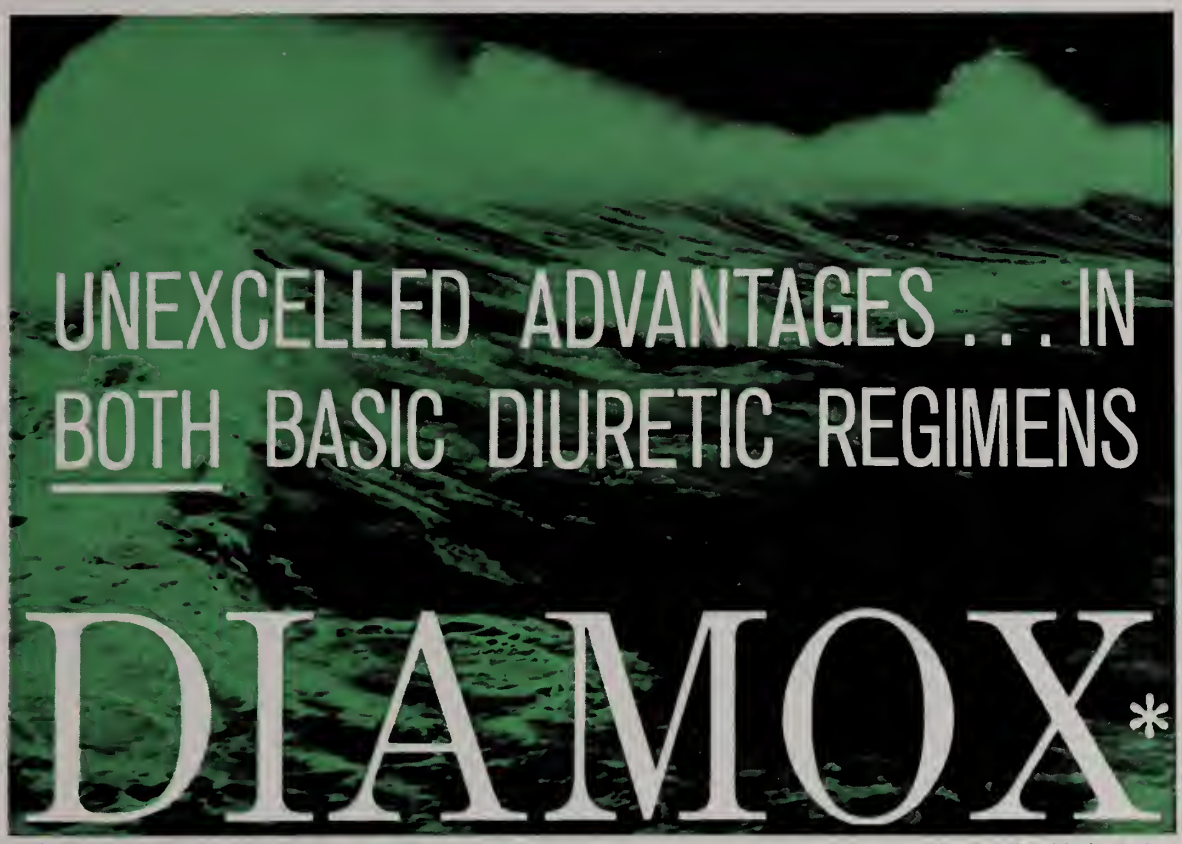
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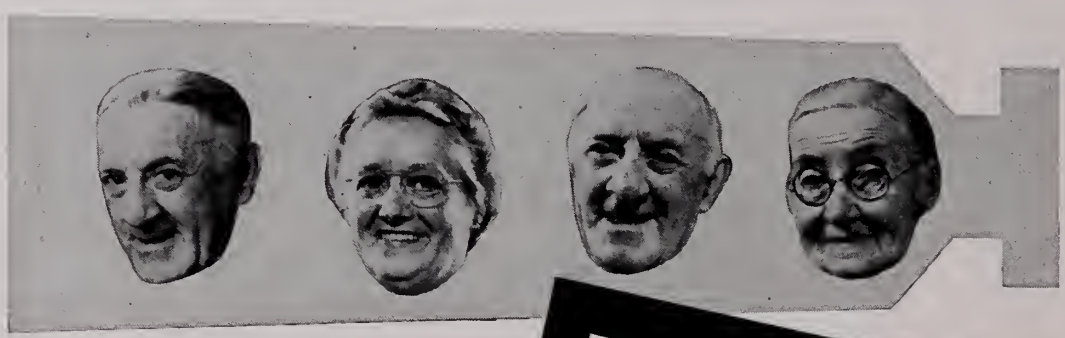
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President, Vern W. Miller, M.D., Salem
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Raymond M. McKeown Re-elected AMA Trustee

The Oregon State Medical Society was highly elated when the House of Delegates of the American Medical Association, at its 1958 Annual Session held in San Francisco June 23-27, re-elected Raymond M. McKeown of Coos Bay to the Board of Trustees for a five year term expiring 1963. Dr. McKeown was elected trustee in 1957 to complete the unexpired term of Gunnar Gundersen who had been elevated to the office of president-elect.

Dr. McKeown's capabilities became well recognized during the more than ten years he represented the Oregon State Medical Society in the AMA House of Delegates. He was appointed to the Association's Commitee on Medical and Related Facilities, the Committee on Lay Sponsored Prepaid Medical Care Plans, and to the Medical Advisory Board of the Sears Roebuck Foundation. As a member of the House of Delegates he was called upon regularly to serve on many reference committees. Still another indication of the respect and confidence which was placed in him was his election to the Council on Medical Service in 1956.

During his first year as trustee Dr. McKeown's responsibilities were greatly expanded. He was made chairman of the Committee on Medical Rating of the Physically Handicapped which produced a report—A Guide to the Evaluation of Permanent Impairment of the Extremities and Back—the first of 11 reports to be made by this Committee. He was also named chairman of the Committee on Paramedical Services and to the Commitee on the Study of AMA Objectives and Basic Problems. In addition to these responsibilities Dr. McKeown was asked to serve as one of the incorporators and secretary-treasurer of the American Medical Research Foundation and to be the Board of Trustees' liaison member to the Council on Medical Service.

OSMS is justifiably proud that Dr. McKeown has been re-elected to this high office in American medicine.

John F. Abele Named to Joint Committee on School Health

John F. Abele of Portland has been named by the Board of Trustees of the American Medical Association to hte AMA and National Education Association's Joint Committee on Health Problems in Education. Dr. Abele succeeds Carl A. Wilzbach of Cincinnati, Ohio and will serve for a term of five years.

Dr. Abele's appointment comes in recognition of his work as Chairman of the Society's Committee on Child Health; as the Society's representative on the Advisory Committee to the Joint Staff Committee of the State Department of Education, the State Board of Health and the State System of Higher Education; and his contributions to the Biennial Conference on Physicians and Schools sponsored by AMA. Dr. Abele was Chairman of the Committee on School Health of the Multnomah County Medical Society from 1952 through 1954 at the time that committee conducted an extensive survey of the school health activities in the Portland public schools, a project which attracted nation-wide attention.

The Joint Committee has been in existence for nearly half a century and has made valuable contributions to solving health problems in schools. The many books and pamphlets relating to all phases of school health which have been published under its direction have been used widely as guides by both schools and medical societies.



AMA Annual Session Sidelight: At left, Vern W. Miller, president of Oregon State Medical Society, presents a certificate to Gunnar Gundersen, president of the American Medical Association, during the 1958 session at San Francisco. The citation declares Dr. Gundersen to be an "Ambassador At Large" of the State of Oregon and invites him to attend the Oregon Centennial Exposition at Portland, June 10 to September 17, 1959. Similar certificates were presented to all officers and trustees of AMA.

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SCIENTIFIC PROGRAM

(All sessions will be held in the Comandery Room, Masonic Temple)

WEDNESDAY, SEPTEMBER 3

9:00 Registration

MORNING SESSION

10:00 Sommer Memorial Lecture: Diet and Coronary Heart Disease
J. Edwin Wood, Jr., M.D., Charlottesville, Va.

11:00 Diagnosis and Treatment of Ruptured Aneurysms of Circle of Willis
George M. Austin, M.D., Portland

11:30 Practical Office Tests for Estimating Kidney Function
Oscar T. Heyerman, M.D., Medford

AFTERNOON SESSION

1:00 Sommer Memorial Lecture: Tumors of the Hand
Michael L. Mason, M.D., Chicago, Ill.

2:00 Panel Discussion: Preoperative and Operative Anesthesia—Including Problems of Oxygen Therapy
(Discussion to be based on questions submitted in advance. Submit questions at the registration desk prior to the close of the morning session.)
Panel Members—Frederick P. Haugen, M.D., Portland, Moderator; Theodore P. Barss, M.D., Medford; John O. Branford, M.D., Portland; T. F. Brinton, M.D., Eugene; and Raymond A. Schneider, M.D., Salem

3:00 Recess to Visit Exhibits

3:30 Some Common Foot Problems and What to Do About Them
Donald B. Slocum, M.D., Eugene

4:00 Sommer Memorial Lecture: Typical Facies and Postures
Ralph V. Platou, M.D., New Orleans, La.

THURSDAY, SEPTEMBER 4

MORNING SESSION

9:00 Sommer Memorial Lecture: From the Mouths of Babes and Sucklings
Ralph V. Platou, M.D.

10:00 Diabetes of Twenty-Five or More Years in Duration: Causes and Effects
Blair Holcomb, M.D. and Wayne R. Rogers, M.D., Portland

10:30 Recess to Visit Exhibits

11:00 Special Guest Lecture: Problems of Public Health in Relation to Inorganic Fluorides
Robert A. Kehoe, M.D., Cincinatti, Ohio

AFTERNOON SESSION

1:00 Sommer Memorial Lecture: Serum Glutanix Oxalo-Acetic Transaminase and Lactic Dehydrogenose Levels and Their Clinical Significance
J. Edwin Wood, Jr., M.D.

(Thursday, Afternoon Session Con't.)

2:00 Diagnosis of Chest Diseases by Scalene Node Biopsy
J. Karl Poppe, M.D., Portland

2:30 Acute Prostatitis Versus Acute Pyelonephritis: Its Diagnosis and Management
Thomas R. Montgomery, M.D., and Gerald F. Whitlock, M.D., Portland

3:00 Recess to Visit Exhibits

3:30 Rupture of the Uterus
Raphael B. Durfee, M.D., Portland

4:00 Sommer Memorial Lecture: The Management of Burns
Michael L. Mason, M.D.

6:00 Annual Society Dinner Dance, Rose Bowl, Hotel Multnomah *(Formal Dress Optional)*

FRIDAY, SEPTEMBER 5

MORNING SESSION

9:15 Annual Business Meeting and Election of Officers

9:45 Sommer Memorial Lecture: Primary and Delayed Tendon Repair of the Hand
Michael L. Mason, M.D.

10:40 Recess to Visit Exhibits

11:10 Special Guest Lecture: What the Practitioner of Medicine Should Know About Radiation Problems
James H. Sterner, M.D., Rochester, N. Y.

AFTERNOON SESSION

1:00 Sommer Memorial Lecture: The Prognosis for Meningitis in Infants
Ralph V. Platou, M.D.

2:00 Panel Discussion: What Can Be Done for Crippling Pulmonary Disorders
(Discussion to be based on questions submitted in advance. Submit questions at the registration desk prior to the close of the morning session.)
Panel Members—John E. Tuhy, M.D., Portland, Moderator; William Cohen, M.D., Portland; Donald M. Pitcairn, M.D., Portland; and Charles S. Campbell, M.D., Salem

3:00 Recess to Visit Exhibits

3:30 Some Observances on 850 Patients Operated on for Lumbar Protruded Intervertebral Disc
John E. Raaf, M.D., Portland

4:00 Sommer Memorial Lecture: The Clinical Significance of Factors Influencing the Excretions of Salt and Water
J. Edwin Wood, Jr., M.D.

MY DAD— HE HURT HIS BACK REAL BAD

"It happened at work while he was putting oil in something"



"He told Mom his shoulder felt like it was on fire"



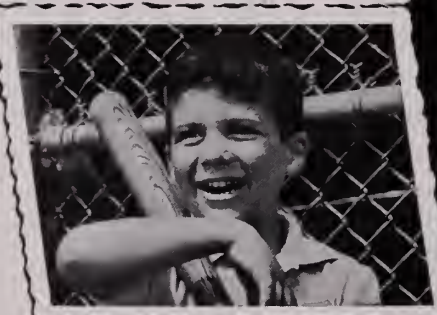
"He couldn't swing a bat without hurting"



"But Doctor gave him some nice pills--and the pain went away fast"



"Dad said we'd play ball again tomorrow when he comes home"



AND THE PAIN WENT AWAY FAST

FOR PAIN

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) **TABLETS**

ACTS FASTER...
usually within 5-15 minutes

LASTS LONGER...
usually for 6 hours or more

MORE THOROUGH RELIEF...
permits uninterrupted sleep through the night

RARELY CONSTIPATES...
excellent for chronic or bedridden patients

and now... NEW

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New "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Available through all pharmacies.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

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Northwest Association of Occupational Medicine Annual Meeting Sept. 7

The Northwest Association of Occupational Medicine will hold its 1958 Annual Meeting on Sunday, September 7, 1958 just preceding the Fifth Pacific Northwest Industrial Health Conference. The following program will be presented at Hotel Multnomah, Portland.

9:00 Registration *(No registration fee)*

9:30 Nurse-Physician Teamwork in American Industry
MELVIN NEWQUIST, M.D., *Medical Director, The Texas Co.*

10:00 Business Meeting

10:30 Close Your Wounds
DAVID E. SULLIVAN, M.D., *Spokane, Wash.*

11:00 Psychiatry for All Our People
GEORGE SASLOW, M.D., *Professor of Psychiatry, University of Oregon Medical School, Portland*

11:30 Treatment of Grave Electric Injury
JAMES I. ROBERTS, M.D., Medical Director, New *England Power Service Company, Boston, Mass.*

12:00 Recess

1:30 Educational Preparation for Industrial Health Service
JEAN S. FELTON, M.D., *Professor of Preventive Medicine (Occupational Health), University of Oklahoma, Oklahoma City*

2:00 Oregon At Work—The Human Story
THE HONORABLE ROBERT HOLMES, *Governor of State of Oregon*

2:30 What's Eating on Him?
REV. JAMES B. MCGOLDRICK, S.J., *Head, Department of Education, Seattle University, Seattle, Wash.*

3:00 Life in Tranquilized Industry
R. G. BELL, M.D., *Bell Clinic on Alcoholism and Addiction, Toronto, Canada*

3:30 Demonstration of Radioactive Energy Sources
G. VICTOR BEARD, *Theoretical Physicist, Chief, Health Protective Branch, Division of Biology and Medicine, Atomic Energy Commission, Washington, D.C.*

4:30 Reception Honoring Speakers. All in Attendance Invited.

Oregon Physician on Far East Medical Team

John G. P. Cleland of Oregon City was included in a team of physicians which departed from San Francisco on June 24 for the Far East and Africa. The team is part of a volunteer mission project created last year by the Baptist Church. The group, which also includes Robert A. Hingson of Cleveland, Ohio and Eugene H. Dibble, Jr., of Tuskegee, Alabama, will be in the Far East and Africa for three months investigating health conditions.

State Board To Meet in September

Next regular meeting of the State Board of Medical Examiners will be held September 26 and 27 at 609 Failing Building, Portland.



NEWLY ELECTED OFFICERS OF SOUTHERN OREGON MEDICAL SOCIETY—*left to right*: Harvey A. Woods, Ashland, member of Board of Censors; Thomas H. Emmens, Medford, president; and Lawrence W. Buonocore, Medford, secretary-treasurer.

Southern Oregon Medical Society Holds 67th Annual Meeting

Southern Oregon Medical Society held its 67th annual meeting Saturday, May 24, 1958 at Zottola's Country Club. Approximately 35 physicians from southern Oregon counties attended.

Officers elected for the coming year were: Thomas H. Emmens, Medford, president; Lawrence W. Buonocore, Medford, secretary-treasurer; Harvey A. Woods, Ashland, member of the Board of Censors. Robert M. Turner of Ashland is vice-president.

Program highlight was the presentation of papers on kidney stones and artificial kidneys by Milton L. Rosenberg, assistant clinical professor of surgery at Stanford University School of Medicine; and John V. Young, clinical instructor in medicine at the Stanford University hospital, Palo Alto, California. A round-table discussion followed the lectures. Specific cases of medical interest were analyzed and questions answered.

Delegates enjoyed a noon-day luncheon at the club, at which time a musical program was presented by Anne and Sally Mackie.

On the same day, the local medical auxiliary met at the Oregon Inn. Mrs. Rosenberg discussed the Oregon auxiliary's project to support a summer camp for handicapped children.

House of Delegates to Meet At Aero Club

Blair J. Henningsgaard of Astoria, speaker of the House of Delegates, announces that the House will hold its regular meetings in the Aerodrome of the Aero Club of Portland, S.W. Taylor Street at Park Avenue. The Aerodrome is located on the third floor. Elevator service is available.

The House of Delegates will meet each day of the Session beginning with breakfast at 7:00 a.m.

Arrangements have been made to accommodate reference committee meetings at the Heathman Hotel in the Castilian and French Rooms. A third room will be announced at the meeting.

Dr. Henningsgaard asks delegates to be on time so that business can begin promptly.

Industrial Health Conference Slated for September 8-9

For the fifth consecutive year the Portland Chamber of Commerce, in cooperation with the Oregon State Medical Society, the Multnomah County Medical Society and twenty-five other Oregon official and voluntary health agencies and professional societies, is sponsoring a Pacific Northwest Industrial Health Conference to be held September 8 and 9, 1958 at the Hotel Multnomah in Portland.



JEAN S. FELTON, M.D.

The program will include presentations by nine leaders outstanding in the field of industrial health and numerous panel discussions of vital industrial health problems.

An important sidelight of this year's conference will be the presence of the members of the Council on Industrial Health of the American Medical Association. The Council has decided to hold one of its regular meetings during the conference. The program in abridged form is printed below. Complete programs are available on request to the Oregon State Medical Society, Medical-Dental Bldg., Portland 5.

MONDAY, SEPTEMBER 8

8:00 Registration in the Lobby. *(Registration desk also open Sunday, Sept. 7 from 3 p.m. to 9 p.m.)*

9:15 Alcoholism and other Addiction in Industry—Identification and Solution of the Problem
Management Aspects: HENRY MIELCAREK, Manager of Personnel Service Dept., Allis-Chalmers Manufacturing Co., Milwaukee, Wis.
Medical Aspects: R. GORDON BELL, M.D., Medical Director, The Bell Clinic, Willowdale, Ontario, Canada

10:30 Panel Discussion

12:00 Luncheon Session *(Joint Meeting with Portland Chamber of Commerce).* Problem of Retirement
CARL H. HAGEMAN, Vice President, Industrial Relations, Union Carbide, New York City

2:00 Proper Utilization of Industrial Nurses
SARA P. WAGNER, R.N., Director of Nurses, Standard Oil Company of New Jersey

3:30 Health Problems of the Utilities Industry—Including Those Conected with Nuclear Power
JAMES I. ROBERTS, M.D., Medical Director, New England Power Service Co., Boston

TUESDAY, SEPTEMBER 9

9:00 Health Education in Industry—Practical Consideration of Actual Programs in Industry
S. S. LIFSON, Director of Health Education, National Tuberculosis Association, New York

10:45 Physical and Emotional Health in Accident Causation and Prevention
JEAN S. FELTON, M.D., Professor of Preventive Medicine, University of Oklahoma School of Medicine, Oklahoma City

12:00 Luncheon Session—Toxic Chemicals in Industry—How to Live and Work Safely with Them
LEMUEL G. MCGEE, M.D., Medical Director, Hercules Powder Company, Wilmington, Del.

2:00 Measuring Manpower Potential: Value and Limitations of Testing Prcoedures
GEORGE W. EBEY, PH.D., Vice President, Consolidated Freightways Corp., Menlo Park, Calif.

2:30 Panel Discussion



LEMUEL G. McGEE, M.D. MR. CARL H. HAGEMAN



MR. HENRY MIELCAREK MR. S. S. LIFSON



R. GORDEN BELL, M.D. JAMES I. ROBERTS, M.D.



SARA P. WAGNER, R.N. GEORGE W. EBEY, Ph.D.

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A severe infectious eczematoid dermatitis on foot of 15-year-old boy. Patient used STEROSAN-Hydrocortisone preparation 3 times a day for 23 days with a dramatic improvement as shown.*



before treatment



after treatment

*Case report and photographs through the courtesy of N. Orentreich, M.D., New York, N.Y.

STEROSAN®-Hydrocortisone (3% chlorquinaldol GEIGY with 1% hydrocortisone) Cream and Ointment. Tubes of 5 Gm. Prescription only.

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For Speedier Return to Normal Nutrition

Meat...

in Inflammatory Conditions of the Colon

The physiologic depletion accompanying acute infectious and inflammatory conditions of the bowel makes replacement therapy the key to nutritional rehabilitation.

In addition to the loss of important electrolytes, such as potassium and sodium, large amounts of protein are lost in the fluid, blood and exudate from the bowel. In the acute state of such affections, utilization of what protein can be ingested is further affected by increased protein catabolism and by impairment of certain hepatic functions.

Dietary rehabilitation must be carried out within the framework of a diet restricted in fiber and in irritating substances. Foods allowed must be easily digested and appetizingly and attractively prepared to encourage eating.

Tender lean meats—finely ground in the initial diet and later served in a wide variety of appealing ways—can be an important source of the protein and minerals required by the convalescing patient.

Meat fits admirably into the requirements of the permitted diet not only because of its taste, digestibility, and physical characteristics, but also because of its contribution of high quality protein, the minerals potassium, iron, phosphorus, sodium, and magnesium, and all the known B vitamins.

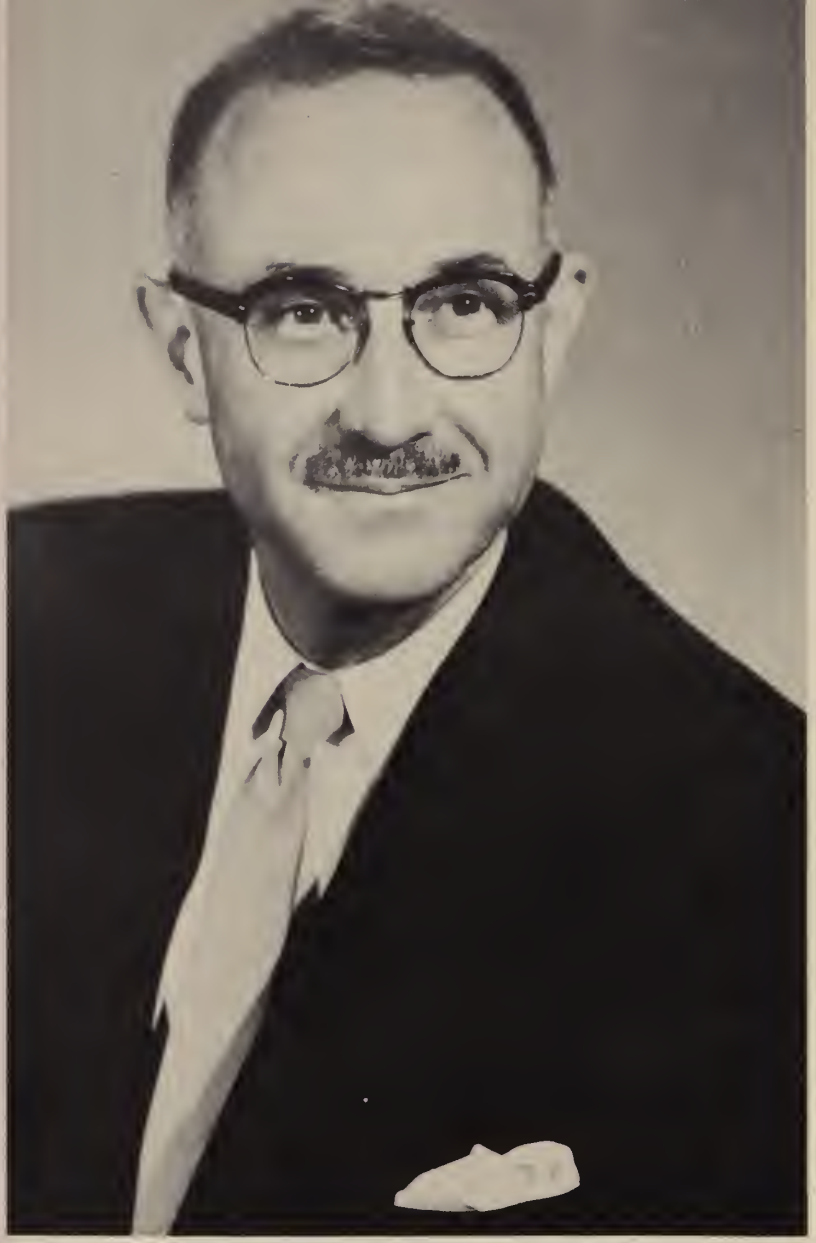
The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
Main Office, Chicago...Members Throughout the United States

Washington State Medical Association

September 14-17 1958
at Spokane





MILO. T. HARRIS, M.D., Spokane
President, WSMA

President's Invitation

As president of the Washington State Medical Association, it is my pleasure to invite physicians of the Northwest to our 69th Annual Convention in the friendly and beautiful city of Spokane September 14-17.

Our convention committees have arranged an excellent program, featuring top-flight speakers and a well-balanced schedule of scientific, non-scientific, business, social and sports events. An innovation this year is a series of refresher courses which will be of interest and practical value to both the general practitioner and the specialist.

I invite your close attention to the program on the following pages and feel sure your attendance will be enjoyable and rewarding.

Milo T. Harris, M.D.

President-Elect
WSMA



Emmett L. Calhoun, M.D.
Aberdeen

Past-President
WSMA



James H. Berge, M.D.
Seattle

Speaker, WSMA
House of Delegates



Homer W. Humiston, M.D.
Tacoma

Secretary-Treasurer
WSMA



F. A. Tucker, M.D.
Seattle

69th Annual Convention

WASHINGTON STATE MEDICAL ASSOCIATION

Davenport Hotel, Spokane

September 14-17, 1958

General Convention Program

SATURDAY, SEPTEMBER 13

9:00 to 12:00 a.m. — Finance and Defense Fund Committee Meetings, Signet Room

1:30 p.m. — Board of Trustees Meeting, East Banquet Room

1:30 p.m. — Bureau Managers' Meeting, Coronet Room

6:00 p.m. — President's Banquet for Board of Trustees, Mandarin and East Banquet Rooms

SUNDAY, SEPTEMBER 14

9:00 to 12:00 a.m. — WPS Stockvoters' Breakfast and Meeting, Isabella Room

10:00 a.m. to 5:00 p.m. — Registration . . . Mezzanine

1:30 p.m. — House of Delegates (First Session), Isabella Room

6:30 p.m. — Refreshments . . . Isabella Room

7:15 p.m. — No-Host Banquet Honoring 50-Year Practitioners (Music and Entertainment), Marie Antoinette Room—Everybody Welcome

MONDAY, SEPTEMBER 15

All Day — Registration . . . Mezzanine

All Day — Fishing Derby—Priest Lake, Idaho (Transportation leaves hotel, 6:00 a.m.)

All Day — Golf Tournament—Spokane Country Club (Tee-off, 7:30 a.m.)

9:00 a.m. to 5:00 p.m. — Scientific Films . . . Isabella Room

4:30 to 6:30 p.m. — Reception for Exhibitors (Doctors Welcome), Marie Antoinette Room

6:30 p.m. — Fishermen's Banquet and Prize Awards, Linger Longer Lodge—Priest Lake, Idaho

6:30 p.m. — Golfers' Banquet and Prize Awards, Spokane Country Club

TUESDAY, SEPTEMBER 16

All Day — Registration . . . Mezzanine

All Day — Reference Committee Meetings, Rooms to be Announced

7:00 a.m. — Past Presidents' Breakfast, Room to be Announced

7:30 a.m. — Breakfast, Refresher Course Instructors, Signet Room

9:00 to 10:30 a.m. — Refresher Courses (See Scientific Program)

9:00 a.m. to 4:30 p.m. — Health Officers' Association Meeting, Room to be Announced

TUESDAY, SEPTEMBER 16 (Cont.)

10:30 to 11:00 a.m. — Recess to Visit Exhibits

11:00 to 12:00 a.m. — GENERAL ASSEMBLY, Marie Antoinette Room
E. L. Calhoun, President-Elect, Presiding
President's Message—Milo T. Harris
Address—Gunnar Gundersen, President, AMA

12 Noon — Luncheon Meetings
E.E.N.T. Section, Coronet Room
Health Officers' Association, Gothic Room
Internal Medicine Section, Nile Room, Desert Hotel
Washington Academy of General Practice, Isabella Room
Washington Chapter, American College of Surgeons, East Banquet Room
Washington State Allergy Society, Mandarin Room

2:00 to 5:00 p.m. — General Scientific Session (See Scientific Program), Marie Antointete Room

6:30 to 12:00 p.m. — Annual Banquet and Dance (Dress Optional)

6:30 p.m. — Reception for National and State Officers, Isabella Room

7:15 p.m. — Annual Banquet (Music and Entertainment), Marie Antoinette Room

9:00 p.m. — Dance (Hal Eastburg's Orchestra), Isabella Room

WEDNESDAY, SEPTEMBER 17

All Day — Registration . . . Mezzanine

7:30 a.m. — Breakfast, Refresher Course Instructors, Signet Room

7:30 a.m. — Breakfast, King County Delegates and Alternates . . . Early Birds Club

8:30 to 10:00 a.m. — Refresher Courses (See Scientific Program)

9 a.m. to 4:30 p.m. — Health Officers' Association Meeting, Room to be Announced

10:00 to 10:30 a.m. — Recess to Visit Exhibits

10:30 to 12:00 a.m. — General Scientific Session (See Scientific Program), Isabella Room

12 Noon — PUBLIC RELATIONS LUNCHEON, Marie Antoinette Room
President Milo T. Harris, Presiding
Address—Governor Albert D. Rosellini

1:30 p.m — House of Delegates (Second Session), Marie Antoinette Room
Committee Reports
Election of Officers
Installation of New President, Emmett L. Calhoun

2:00 to 5:00 p.m. — General Scientific Session (See Scientific Program), Isabella Room

6:30 to 8:30 p.m. — Reception for New Presidents, Isabella Room
Emmett L. Calhoun, Aberdeen, WSMA
Mrs. Clarence L. Lyon, Spokane, Woman's Auxiliary



Gunnar Gundersen, M.D.



Gov. Albert D. Rosellini

AMA President Gundersen, Governor Rosellini featured in Non-Scientific Program

President Gunnar Gundersen of the American Medical Association and the Honorable Albert D. Rosellini, Governor of the State of Washington, will be featured speakers in the non-scientific program of the Convention.

The top AMA official will appear with President Milo T. Harris of the Washington State Medical Association in the General Assembly at 11:00 a.m. Tuesday, September 16. Everyone is welcome. Dr. Gundersen will draw upon his intimate knowledge of professional activities and medical practice to present an inspiring message to the physicians of the state. Prior to his installation as AMA president at San Francisco in June, Dr. Gundersen was a member of the AMA Board of Trustees since 1948, and served two years as chairman.

Governor Rosellini will address the Public Relations Luncheon at 12 o'clock noon Wednesday, September 17. He will discuss state issues of concern to the medical profession. An attorney, Governor Rosellini was a member of the State Senate for 17 years prior to his election as governor in 1956. While in the Senate, he introduced the bill which created the University of Washington School of Medicine in 1945.

Admission to the Public Relations Luncheon will be $1.00 per person, with the balance of the cost of the luncheon borne by the State Medical Association.

Social Events

For the relaxation and enjoyment of doctors and their wives, a pleasurable calendar of social events and entertainment will be interspersed with the serious business of the Convention.

The outstanding social attraction will be the Annual Banquet and Dance Tuesday evening, September 16, for which dress will be optional. Preceding the banquet will be a reception for national and state officers, at which refreshments will be served. There will be music and entertainment during the banquet, followed by dancing to Hal Eastburg's orchestra. Tickets to this and other convention social events will be available by mail.

Members who have practiced medicine for 50 years or more will be honored at the informal, no-host Sunday evening banquet September 14. Music and entertainment are also in store for this event. Refreshments will precede the banquet.

Final social event of the Convention will be the Presidents' Reception Wednesday evening, September 17. The reception will honor the incoming presidents of the State Association and Auxiliary, Emmett L. Calhoun of Aberdeen and Mrs. Clarence L. Lyon of Spokane. The State Association will be host and everyone is welcome.

Guest Scientific Speakers



John Caffey, M.D.

New York City
Professor of Radiology, Columbia University
Radiologist to Babies Hospital, Presbyterian Hospital and Vanderbilt Clinic

Local Host: E. Finch Parsons, M.D.



Walter A. Fansler, M.D.

Minneapolis, Minnesota
Clinical Professor and Director, Division of Proctology
University of Minnesota Medical School

Local Host: Everett B. Coulter, M.D.



William S. Middleton, M.D.

Washington, D. C.
Chief Medical Director
Veterans Administration

Local Host: George H. Anderson, M.D.



R. A. Murray, M.D.

Temple, Texas
Chief of Department of Orthopedic Surgery
Scott and White Clinic and Scott and White Memorial Hospital

Local Host: Geroge T. Wallace, M.D



Eugene F. Poutasse, M.D.

Cleveland, Ohio
Staff Urologist, Cleveland Clinic Foundation and Frank E. Bunts Institute

Local Host: Alfred E. Dodson, M.D.



Lucian A. Smith, M.D.

Rochester, Minnesota
Associate Professor of Medicine, Mayo Foundation, Head, Section on Internal Medicine, Mayo Clinic

Local Host: Carl P. Schlicke, M.D.



Clyde A. Stevenson, M.D.
Spokane, Chairman
Scientific Program

Scientific Program

69th Annual Convention

Washington State Medical Association

Davenport Hotel, Spokane, September 14-17, 1958

The Scientific Program consists of two days of scientific sessions and one day of medical films. Scientific sessions include refresher courses, for which advance reservations are required, and general scientific meetings. The program is recognized for Category 2 Credit by the Washington Academy of General Practice. Physicians wishing to attend refresher courses may register by using the blank in the Washington section of this issue, which also contains space for making hotel reservations. The program is as follows:

MONDAY, SEPTEMBER 15

2:00-5:00 p.m. } Scientific Films;
9:00-12 noon } Titles to be Announced
Isabella Room

TUESDAY, SEPTEMBER 16

9:00-10:30 a.m. REFRESHER COURSES (Five Conducted Simultaneously)

Present Status of Staphylococcic Infections in the Newborn

Instructor: ROBERT A. ALDRICH, M.D., Seattle
Professor and Executive Officer, Department of Pediatrics, University of Washington School of Medicine
Coronet Room

Hemorrhoids and Fissures

Instructor: WALTER A. FANSLER, M.D., Minneapolis, Minn.
Clinical Professor and Director, Division of Proctology
University of Minnesota Medical School
Marie Antoinette Room

Care of the Injured Hand

Instructor: R. A. MURRAY, M.D., Temple, Texas
Chief, Department of Orthopedic Surgery
Scott and White Clinic and Scott and White Memorial Hospital
Isabella Room

Technique and Interpretation of Renal Angiography

Instructor: EUGENE F. POUTASSE, M.D., Cleveland, Ohio
Staff Urologist, Cleveland Clinic Foundation and Frank E. Bunts Institute
Mandarin Room

Anatomy of Abdominal Pain

Instructor: LUCIAN A. SMITH, M.D., Rochester, Minn.
Associate Professor of Medicine, Mayo Foundation
Head, Section on Internal Medicine, Mayo Clinic
East Banquet Room

2:00-5:00 p.m. GENERAL SCIENTIFIC SESSION
Marie Antoinette Room

2:00 Changing Concepts in the Treatment of Polyps of the Colon and Rectum
WALTER A. FANSLER, M.D.

2:30 Surgical Treatment of Diverticulitis
CARL P. SCHLICKE, M.D., Spokane, and ARCH LOGAN, M.D., Spokane

2:55 Diagnosis and Surgical Management of Congenital Lesions of the Esophagus
RALPH BERG, JR., M.D., Spokane

3:20-3:40 RECESS TO VISIT EXHIBITS

3:40 Osteomyelitis—Diagnosis, Treatment and Complications
R. A. MURRAY, M.D.

4:10 Fractures of the Ankle
LOUIS H. EDMUNDS, M.D., Seattle

4:35 Plastic Surgical Problems in General Practice
DAVID E. SULLIVAN, M.D., Spokane

WEDNESDAY, SEPTEMBER 17

8:30-10:00 a.m. REFRESHER COURSES (Six conducted simultaneously)

Osteochondroses and Normal Variation in the Growing Skeleton
Instructor: JOHN CAFFEY, M.D., New York City
Professor of Radiology, Columbia University
Coronet Room

Perirectal Abscess and Fistula
Instructor: WALTER A. FANSLER, M.D.
Isabella Room

Differentiation and Management of Peripheral Vascular Disease
Instructor: WILLIAM S. MIDDLETON, M.D., Washington, D. C.
Chief Medical Director, Veterans Administration
Marie Antoinette Room

Fractures of the Upper Extremity
Instructor: R. A. MURRAY, M.D.
East Banquet Room

Difficult Surgical Problems of the Upper Urinary Tract
Instructor: EUGENE F. POUTASSE, M.D.
Gothic Room

Application of Pain Patterns to the Diagnosis of Abdominal Pain
Instructor: LUCIAN A. SMITH, M.D.
Mandarin Room

10:30-12:00 noon
2:00-5:00 p.m.
} GENERAL SCIENTIFIC SESSIONS
Isabella Room

10:30 Radiographic Signs of Mongoloidism During Early Infancy
JOHN CAFFEY, M.D.

11:00 Meaning of Jaundice in the Infant and Young Child
ROBERT A. ALDRICH, M.D.

11:30 Gastrodialysis in the Management of Acute Renal Insufficiency
JAMES M. BURNELL, M.D., Seattle

2:00 Aneurysm of the Aorta
WILLIAM S. MIDDLETON, M.D.

2:30 Surgical Aspects of Peripheral Vascular Disease
R. N. KLEAVELAND, M.D.

2:55 Remote Pain as an Aid in the Diagnosis of Abdominal Disease
LUCIAN A. SMITH, M.D.

3:25-3:40 RECESS TO VISIT EXHIBITS

3:40 Clinical Experience with Chlorpropamide (P-607) In the Treatment of Diabetes Mellitus
ROBERT H. BARNES, M.D., Seattle

4:05 Renal Artery Disease in Hypertension
EUGENE F. POUTASSE, M.D.

4:35 Results of Desensitization to Insect Bites
ROBERT A. STIER, M.D., Spokane

Davenport Hotel Swimming Pool—
Free use to hotel clientele and their guests.





L. S. Highsmith, M.D.
Spokane, Chairman
Scientific Exhibits

Scientific Exhibits

Fifteen scientific displays, carefully selected by the Scientific Exhibits Committee, will be shown in the lobby and Hall of Doges at the Davenport Hotel. These high-quality exhibits show the results of research projects and advancements in variaus fields af medicine and surgery. Listed below, they merit yaur attention.

Hotel Lobby

Cardiopulmonary By Pass Machine
R. Berg, Jr., H. Lang, Jr. and R. N. Kleaveland, Spokane

Early Detection of Children's Eye Problems
Robert J. Davis, Spokane

Practical Aspects of Isotope Techniques in Medicine
Milo T. Harris, Robert P. Sagerson, Richard A. Betts, Clyde A. Stevenson and Charles Stevenson, Spokane

Advances in Arterial Surgery
Richard N. Kleaveland, Spokane

Common Errors in Radiography
P. A. Lynch, J. E. Downing and E. J. James, Yakima

Corneal Transplant
C. K. Miller and M. G. Radewan, Wenatchee

Urinary Calculi Fallowing Poliomyelitis
Fred Plum, Seattle

Hall of Doges

Renal Glomerulo-Tubular Mechanisms in Narmal and Toxemic Pregnancy
Russell R. de Alvarez, Muriel J. Lamkee and Gloria E. Bratvold, B.S., Seattle

Therapeutic Use of Autogeneous Bacterial Vaccines
William N. Freeman, Colfax

Mid-Trimester Abartion
David Groenig and Ralph T. Harsh, Spokane

Virus Disease Research
R. W. Leader, D.V.M., J. R. Gorham, D.V.M. and Tobjam Moll, D.V.M., Pullman

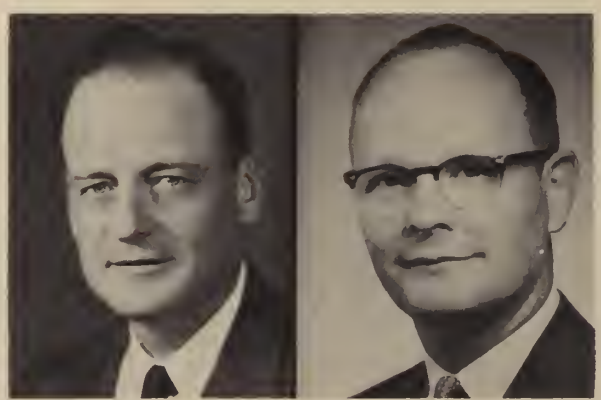
Hypertension and Renal Artery Disease
H. P. Lee, R. E. Jensen, T. E. Canning and A. E. Dodson, Spokane

Current Use of the Tuberculin Test in General Practice
Cedric Northrop, Seattle

Significance of Polyps of Colon and Rectum, Importance of Early Detection and Proper Therapy
G. Edward Schnug and Charles R. Cavanagh, Spokane

Stinging Insects—Taxonomy-Ecology; Antigenic Analyses; Desensitization Results
Robert A. Stier, Robert F. E. Stier and Edward L. Foubert, Jr., Ph.D., Spokane

Sports Events



R. McC. O'Brien, M.D.
Spokane, Chairman
Golf Tournament

O. Charles Olson, M.D.
Spokane, Chairman
Fishing Derby

Fishing and golfing will provide competitian and recreation for sparts enthusiasts attending the Convention. The Trout Fishing Derby and the Annual Tournament of the Washington State Medical Golf Association are scheduled far Monday, September 15.

The Fishing Derby will be held at Priest Lake, Idaho, with headquarters at Linger Longer Lodge. Bus transpartation will be provided from the Davenport Hotel ta the lake and back. Busses will leave the hotel at 6:00 a.m.

The Golf Tournament will be held at the Spokane Country Club, with tee-off at 7:30 a.m. Low gross score at 18 holes will decide the championship. All other competitian, in sections and divisians, will be on handicap. Four-man county teams will campete far the Shaw Trophy.

Climaxing the sports pragram will be stag banquets and prize awards, at Priest Lake for fishermen, and at the Spokane Cauntry Club for golfers. Entry blanks and further information will be sent to prospective golfers and fishermen in ample time for the competition.

Mrs. Underwood Featured in Woman's Auxiliary Convention In Spokane, September 14-17

With one of its own members in the limelight as national president, the Woman's Auxiliary to Washington State Medical Association will hold its 27th annual convention in Spokane September 14-17, inclusive. The Hotel Ridpath will be convention headquarters and center of activities.

Mrs. E. Arthur Underwood of Vancouver, Washington, president of the Woman's Auxiliary to the American Medical Association, will have a prominent part in the convention program, and she will be honored with Mrs. E. Donald Lynch of Yakima, State Auxiliary president, at a dinner and fashion show Monday evening, September 15.

Mrs. Underwood will address the Auxiliary at its annual luncheon honoring past presidents Tuesday noon, September 16. Gunnar Gundersen of LaCrosse, Wisconsin, president of the American Medical Association, will speak during the same program. Luncheon guests will include Mrs. Roscoe Mosiman of Seattle, past president of the AMA Auxiliary, Mrs. Morris Hecht of Bellingham, junior past president of the State Auxiliary, and the president and president-elect of the Washington State Medical Association, Milo T. Harris of Spokane and Emmett L. Calhoun of Aberdeen.

Mrs. Lynch will give her presidential report at the convention's first general session, which will be held from 2:00 to 4:30 p.m. Monday, September 15. This session also will include a report on the national Auxiliary convention by the president-elect of the State Auxiliary, Mrs. Clarence L. Lyon of Spokane, and reports of officers and county Auxiliary presidents.

Tuesday's general session will open at 9:00 a.m. with greetings from Dr. Calhoun, WSMA president-elect. That afternoon, following reports of the Resolutions and Nominating Committees, officers will be elected for the coming year, and the new officers will be installed by Mrs. Underwood.



Mrs. E. D. Lynch
Yakima, President
WSMA Woman's Auxiliary

Mrs. C. L. Lyon
Spokane, President
WSMA Woman's Auxiliary



Mrs. E. A. Underwood, *Vancouver*
President, Woman's Auxiliary to AMA

The Auxiliary's annual golf tournament and luncheon will be held at the Manito Golf and Country Club on Monday, September 15. Golf trophy awards will be presented that evening at the Spokane Club, following the dinner and fashion show honoring Mrs. Underwood and Mrs. Lynch.

Also scheduled for Monday is a workshop for new county Auxiliary presidents, presidents-elect, treasurers, organization chairmen and state committee members. The workshop will be held in the Hotel Ridpath beginning at 9:00 a.m.

Other convention attractions are events planned for physicians and their wives in conjunction with the convention of the Washington State Medical Association. These include the no-host banquet honoring 50-year practitioners Sunday evening, the Annual Banquet and Dance Tuesday evening, the Public Relations Luncheon Wednesday noon, and the reception honoring the new presidents of the Association and Auxiliary Wednesday evening.

Pre-convention events and registration will begin Sunday at 2:00 p.m. There will be meetings of the State Auxiliary Board, Revisions Committee and Nominating Committee that afternoon.

Mrs. James M. Patton of Spokane is chairman of the Convention Committee. Other members of the committee, all of Spokane, are Mrs. Harry Lee, Mrs. Rudolph Stuart, Mrs. R. McC. O'Brien, Mrs. D. W. Robinson, Mrs. R. P. Shanewise, Mrs. Carroll Smith, Mrs. J. H. Delaney, Mrs. Arch Logan, Mrs. Robert Albi, and Mrs. Edward Johnston. •



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Newest Techniques in Laboratory Diagnosis To Be Described at Public Health Conference

Newest laboratory techniques for detection of diptheria and other communicable diseases will be described by two U. S. Public Health Service specialists September 29 at 1 p.m. in the Chinook Hotel, Yakima. Herman C. Mason, head of the public health laboratories of the State Health Department, urges physicians, pathologists, and medical and hospital laboratory personnel to attend this laboratory program which will be presented as part of the 23rd annual Washington State Public Health Association conference.

Specialists appearing on the program are Elberton Tiffany, chief of the laboratory and training program, Communicable Disease Center, Chamblce, Ga., and Miss Genevieve Stout, serologic consultant, Venereal Disease Research Laboratory, Chamblee. Among the important developments to be described is the recent advance of fluorescent antibody techniques in detection of disease-producing organisms.



Reservists Train at Fort Ord Hospital

Reservists of the 50th General Hospital, commanded by Colonel Frederick F. Ackerman of Seattle, recently spent their two weeks of annual summer training at the U.S. Army Hospital, Fort Ord, Calif. The unit participated in parallel training with Regular Army personnel at the Hospital. The 50th General Hospital, consisting of 123 officers, nurses and enlisted personnel from the Seattle area, is the largest and oldest Medical Reserve unit in the U.S. Army Corps command.

PRELIMINARY PLANS for the S. Maimon Samuels Institute for Heart and Cancer Research have been approved by the University of Washington Board of Regents. To be built attached to the south wing of the University's Teaching and Research Hospital, the three-story building will be devoted entirely to heart and cancer research laboratories, with the exception of an entrance and waiting room. A major portion of the cost, estimated at $800,000, was a gift of Dr. and Mrs. S. Maimon Samuels of Seattle. Construction is scheduled to start within a year.

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1958 Convention, Washington State Medical Association, Spokane, Sept. 14-17

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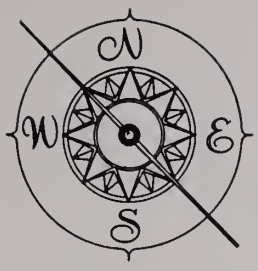
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SIXTY-SEVENTH ANNUAL MEETING
June 14-17, 1959
Sun Valley

President, Donold K. Worden, Lewiston Secretary, Max D. Gudmundsen, Boise Exec. Secy., Mr. A. L. Bird, 364 Sonno Bldg., Boise



Dr. and Mrs. Hoyt B. Woolley of Idaho Falls. During the past year, Mrs. Woolley was president of the Woman's Auxiliary to the Idaho State Medical Association and Dr. Woolley was the prexy of ISMA.

The Sun Valley Meeting

Idaho's 66th annual session at Sun Valley last month demonstrated that, between them, the Idaho Association and Sun Valley retain a firm grip on Amalthaea's horn. Idaho's meetings have an abundance of everything anyone planning such an affair might desire. Approval was expressed in its most convincing form when registration figures broke all previous records.

Main purpose for a medical meeting is the provision of opportunity for members to advance their knowledge of medicine. This purpose has been fulfilled richly in Idaho by establishing the annual meeting as a fine postgraduate session. The program this year was presented by a surgeon, Carl A. Moyer of St. Louis; an orthopedist, Don H. O'Donoghue of Oklahoma City; an urologist, C. Donald Creevy of Minneapolis; a gynecologist, Ralph C. Benson of Portland and an internist, H. Corwin Hinshaw, Sr., of San Francisco. The program published in the May issue of this journal was followed.

Attendance at the scientific sessions was very good, with a high percentage of those registered attending all lectures. Enjoyment was enhanced by the excellent facilities provided plus the fact that afternoons are left free for sports, recreational activity or just plain loafing, in which one may indulge at Sun Valley without feeling guilty about it.

Exhibit tent was expanded this year with two tents joined to make a very satisfactory, if informal, exhibit hall. Coffee service at the mid-morning break was provided under canvas this year, rather than on the lawn in front of the Opera House. The change was appreciated by physicians and exhibitors alike and stimulated visits to the booths.

Another popular change was made in the program for the first day when the party usually held at the Harriman Cottage was converted to an open house. This turned out to be an overflow event and much enjoyed by all who attended.

Unanticipated fillip was given the Trail Creek party when members of an organization of retired airline hostesses joined in the fun. Meeting at Sun Valley at the same time, they demonstrated that, although retired, they had lost none

(Continued on page 1048)

(Continued from page 1047)

of the ready charm which an airline hostess is supposed to possess.

Traditional Stag Dinner and Ladies Dinner on Tuesday evening were followed by an hour long show on Sun Valley's famous outdoor rink. This was one of the best offered the Idaho group in recent years and featured some specialty numbers worthy of the best of the travelling shows.

House of Delegates

The House of Delegates opened its important business sessions at 1:00 p.m. Sunday. Numerous committee reports were considered and resolutions were presented. Reference committees met Monday forenoon and their reports were heard at breakfast meetings on Tuesday and Wednesday.

The House conducted its business expeditiously this year due to good organization of reference committee work plus excellent guidance from President Woolley. During the three sessions the House:

Approved a recommendation that members increase protective insurance to a minimum of $100,000-$300,000.

Refused to set an effective date for resolution K, adopted in 1956 and amended in 1957.

Heard preliminary report that rehabilitation laws are under study.

Condemned use of fluoroscope in fitting children's shoes.

Recommended that requirements for annual chest x-ray of teachers be dropped but that adequate pre-employment examination be made requisite to employment in any school system.

Recommended that serologic tests for food handlers be discontinued.

Approved encouragement of wider use of poliomyelitis vaccine and urging of all under age 40 to be vaccinated.

Adopted an outline of principles for physician-lawyer relationships.

Moved to invite delegates from the Association of American Medical Colleges and the Council on Medical Education and Hospitals to study Idaho resources for possible establishment of a two year medical school.



Gov. Robert Smiley of Idaho and Mrs. Alexander Barclay, Jr.

Reaffirmed support of the Western Interstate Compact which permits a state without a medical school to pay certain costs incurred when its residents study medicine in another state.

Adopted a resolution asking life insurance companies to pay fee of $15 for medical examination of insurance purchaser.

Referred back to the study committee a 1957 resolution calling for preparation of a pamphlet on prepayment. The House ordered publication of the pamphlet which is to be distributed to the public through physicians' offices.

Heard that reserves in the medical student loan fund are adequate and that current usage is 40 per cent.

Heard discussion on rehabilitation efforts under the state government. Currently available funds are not all being applied because the law provides that 7 per cent of available money can be devoted to salaries. Limitation of personnel reduces the amount of work which can be done. Four councilors now employed are seriously overloaded. Some misunderstandings have been resolved and it is anticipated program will enlarge.

Heard proposal from Mr. James Perry offering

(Continued on page 1050)

FACING PAGE: Fig. 1. Immediate Past-President Hoyt B. Woolley of Idaho Falls, President Donald K. Worden of Lewiston and President-Elect Quentin Mack of Boise. Fig. 2. Officers of ISMA—Past-President Woolley; President Worden; President-Elect Mack; Richard D. Simonton, Boise, Councilor, District No. Two; Max D. Gudmundsen, Boise, secretary-treasurer; Fred E. Wallber, Idaho Falls, Councilor, District No. Four; Robert E. Staley, Kellogg, Councilor, District No. One; and F. Wayne Schow, Twin Falls, Councilor, District No. Three. Figs. 3, 4, 5 and 6. Delegates Breakfast in the Duchin Room. Figs. 7, 8, 9 and 10. Technical and Scientific Exhibits were housed in a tent at the front of the Opera House.


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Fig. 1. Carl A. Moyer, St. Louis, Mo. Fig. 2. Ralph C. Benson, Portland, Ore. Fig. 3. C. Donald Creevy, Minneapolis, Minn. Fig. 4. Don H. O'Donoghue, Oklahoma City, Okla. Fig. 5. H. Corwin Hinshaw, Sr., San Francisco, Calif. Fig. 6. Program Chairman Fred Wallber, Idaho Falls. Fig. 7. George M. Fister, Ogden, Utah, AMA Trustee. Fig. 8. Asael Tall, Rigby, Ida.

(Continued from page 1048)

an improved accident and disability policy to members of the Association. Details of the proposal will be distributed in a forthcoming Newsletter from the Central Office.

Installed Donald K. Worden as President.

Elected Quentin W. Mack, President Elect, Max D. Gudmundsen, Secretary-Treasurer, Fred E. Wallber, Councilor—District Four, Richard D. Simonton, Councilor—District Two and Melvin M. Graves, Trustee—Northwest Medicine.

Woman's Auxiliary

Guest of honor at the session was Gladys Underwood of Vancouver, Washington, President-Elect of the Woman's Auxiliary to the American Medical Association.

Following are the officers for the current year:

Mrs. E. R. W. Fox, Coeur d'Alene, President.

Mrs. Max Bell, Boise, President-Elect.

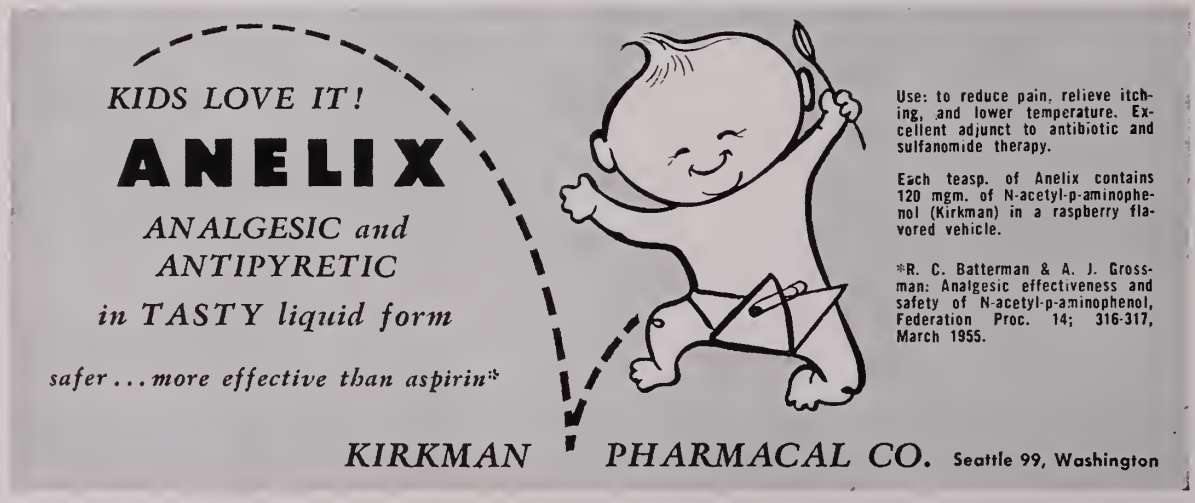
Mrs. V. Ellis Knight, Kimberly, First Vice-President.

Mrs. P. Blair Ellsworth, Idaho Falls, Second Vice-President.

Mrs. Richard K. Gorton, Pocatello, Third Vice-President.

Mrs. Glenn M. Whitesel, Kellogg, Treasurer.

Mrs. O. D. Hoffman, Rexburg, Secretary.



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Fig. 1. Technologists at Idaho Falls Hospital demonstrate blood banking and transfusion techniques. Fig. 2. Electrolyte studies. Fig. 3. Isotope methodology.

Workshop on Improved Laboratory Procedures Hospital Pathologists Conduct

A workshop in improved laboratory procedures, sponsored by the Southeastern Council of the Idaho Hospital Association, was held at the Idaho Falls Hospital on May 17 from 1 p.m. to 7 p.m. Forty medical technologists from Eastern Idaho attended the workshop which considered the medical technologist's and laboratory worker's role in the overall operation of the laboratory, including inter-departmental relationships, technical problems and new developments in laboratory equipment and techniques.

Major emphasis was given to a discussion of thyroid uptake (its relation to BMR, cholesterol and P.B.I.). Other subjects included in the program were: blood banking (factors, pitfalls, replacement problems); bacteriology (routine procedures for initial specimen culture); total base, chlorides and bicarbonate levels (rapid method for determination, significance, interpretation); osmoler clearance; cholesterol (new quick method using p-toluene sulfonic acid) and transaminase (principle, application, significance). In addition, the film entitled Cytotechnologist was shown to the workshop participants.

Pathologists conducting the workshop were J. A. Williams, Sacred Heart Hospital, Idaho Falls; J. W. Creed, Magic Valley Memorial Hospital, Twin Falls; Ed Webb, Bannock Memorial Hospital, Pocatello, and Bland Giddings, host and chairman, Idaho Falls Hospital, Idaho Falls.

Obituary

Dr. Roy Campbell Crosby, 41-year-old Boise internist, died of injuries received when his airplane crashed near Marlboro, Mass., on July 20. Three of Dr. Crosby's sons were injured in the crash. Born in Framingham, Mass., Dr. Crosby graduated from Tufts College of Medicine, Boston, 1944, and had practiced in Boise since 1949.

Coming Meetings

North Pacific Pediatric Society will meet in Sun Valley, September 15-16. Guest speakers will be John Caffey, New York; Harold Palmer, Denver; Gunnar Stickler, Rochester, Minn. Loy T. Swinehart of Boise is program chairman.

Combined meeting of the Idaho Society of Internal Medicine and regional session, American College of Physicians, will be held at Sun Valley, September 26-27. Speakers for this session will include Chester Keefer, Boston, Mass., and Frank McGlone, Denver.





running noses . . .



and other hay fever symptoms

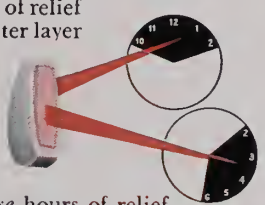
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Above: (l to r) Edwin S. Hamilton, Kankokee, Ill., choirmon, AMA boord of trustees; David B. Allman, Atlantic City, N.J., retiring president; Gunnor Gundersen, LaCrosse, Wis., newly installed president. At right and below: Exhibit holl.





AMA at San Francisco

Attempting to cover all aspects of any meeting of the American Medical Association is apt to give one a sense of frustration somewhat akin to that of a humming bird trying to incubate an ostrich egg. It is impossible to do more than pay attention to one small spot at one time.

This was particularly true at San Francisco, June 22-27, where sessions of the House of Delegates were held at the Sheraton Palace Hotel, the Scientific Exhibit in the Civic Auditorium, the Technical Exhibit in adjoining new underground space and the scientific meetings in a variety of halls. Three rooms were utilized in the Civic Auditorium, three in the Masonic Temple, one in the Mark Hopkins Hotel, one in the Fairmont Hotel, one in the Veterans War Memorial, and one in the High School of Commerce. These and other segments of the session were announced in the official program. In addition, as usual, there were innumerable special meetings, committee sessions, social events and hospitality rooms.

The New Exhibit Hall

Irreverent and irrepressible San Francisco newspaper men have a knack for picking names that stick. Several years ago one of them wrote his story about the huge agricultural hall which stands on that city's near south side. He called it a palace for cows and Cow Palace it has remained in spite of official remonstrance and efforts to attach a less pungent title. Another, no less imaginative scribe, took one look at the new subterranean hall attached to the Civic Auditorium and impolitely dubbed it Mole Hall. It was supposed to be "The New Plaza Exhibit Hall" but that dignified designation seems destined for short life. Mole Hall it is.

Regardless of the sobriquet, the new space was of great benefit to the 107th meeting of AMA and was a tremendous improvement over the tent set above ground at the same spot, used to house technical exhibits at the 1954 meeting (see photograph page 810 in Northwest Medicine, August 1954). The new and attractive exhibit space was enjoyed by exhibitors and physicians alike. The meeting attracted more than 13,000 physicians, 1,000 over registration of the 1954 meeting and nearly 3,000 more than were

(Continued on page 1059)

Scientific Exhibits from the Northwest—*Facing Page*: Fig. 1. Robert E. Rinehart of Wheeler, Ore., and his medical technician, Miss Helen Marcus, stand beside his exhibit on Chloroquine Therapy in Rheumatoid Arthritis. Fig. 2. Left Heart Catheterization—G. H. Lawrence and R. M. Paine, Seattle. Fig. 3. Fractures of the Ankle—James Miller, Seattle. Fig. 4. Robert A. Bruce of Seattle opened the discussion on Results of Mitral Commissurotomy: A Three and One-Half to Seven Year Follow-Up Study. Fig. 5. Comparison of Myelography and Discography in Diagnosis of Low Back Disability—Norman M. Harris, Donald deF. Bauer and Anthony J. Smith, Coos Bay. Fig. 6. The Evolution of Orbital Implants—Wood Lyda and J. L. Hargiss, Seattle. Fig. 7. Cow's Milk Allergy in Infants—Norman W. Clein, Seattle. Fig. 8. Allergy to Stinging Insects—Robert A. Stier and Robert F. E. Stier, Spokane.


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2
of the Ankle
Special Exhibit
3
4
BACK PAIN
5
6
COW'S MILK ALLERGY IN INFANTS
7
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8

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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(Continued from page 1056)
registered in 1950. *AMA Daily Bulletin* reported 216 from Oregon, 305 from Washington, 38 from Idaho and 7 from Alaska.

Northwest Participation

Many physicians from the Northwest participated in the meeting. The following information comes from the official program:

"Is Heat Sterilization of Drugs and Equipment for Regional Block Anesthesia a Necessity?", L. Donald Bridenbaugh, Seattle.

"The Place of Regional Anesthesia in Surgical Practice," John J. Bonica, Tacoma.

"Allergy and the Tonsil Problem in Children," Norman W. Clein, Seattle.

"Results of Desensitization with Stinging Insect Antigens," Robert A. Stier and Robert F. E. Stier, Spokane.

"Experimental Studies of the Psychiatric Interview," George Saslow, J. D. Matarazzo, R. G. Matarazzo and J. S. Phillips, Portland.

"Two-Year Experience with Chemopallidectomy," Harold D. Paxton and Robert S. Dow, Portland.

"Calcium Metabolism in Poliomyelitis," Fred Plum, Seattle.

"Electromyographic Studies on Patients with Chronic Headaches," Herman A. Dickel and Henry H. Dixon, Portland.

"The Use of Posterior and Anterior Colpotomy in Gynecology," Raphael B. Durfee, Portland.

"The Physiologic Basis for Hormone Therapy in the Female," Russell R. de Alvarez and Elizabeth K. Smith, Seattle.



Frank Krusen of the Mayo Foundation was awarded the AMA's 1958 Distinguished Service Award for his work in physical medicine. Gunnar Gundersen (at right), AMA president, admires his gold medal award.



The Billings Gold Medal Award, presented for correlation of facts and presentation, was won by C. H. Hodgson, J. A. Callahan, A. J. Bruwer and A. H. Bulbulian of the Mayo Clinic and Mayo Foundation for their exhibit on Misleading Thoracic Roentgenograms.

"Clinical and Laboratory Experience with Virac, a Bactericidal, Fungicidal, and Viricidal Agent," John E. Harris, Peter R. Rowell and Olive Beaudreau, Portland.

"Radioelectrophoretic Patterns of Aqueous and Plasma After Intravenous Injection of I^{131} Labeled Insulin into Normal and Diabetic Rabbits," Kenneth M. Giles and John E. Harris, Portland.

"The Influence of Methylene Blue and Other Dyes on the Cation and Water Balance of the Lens," John E. Harris, Louise Gruber and Gertrude Hoskinson, Portland.

"Ocular Changes Induced by Polysaccharides: II. Detection of Hyaluronic Acid Sulfate After Injection into Ocular Tissues," Ellen Talman, John E. Harris and Louise Gruber, Portland.

"Pain in the Shoulder from the Standpoint of the Internist," Edward H. Morgan, Seattle.

"The Pathologic Manifestations of Stromal Endometriosis of the Uterus," Warren C. Hunter, Portland.

"Antibiotic Prophylaxis in Pediatrics," Robert A. Tidwell, Seattle.

"The Use of Ultrasonic Diathermy in the Presence of Surgical Metallic Implants," Justus F. Lehmann, Katherine E. Lane, Jack W. Bell and George D. Brunner, Seattle.

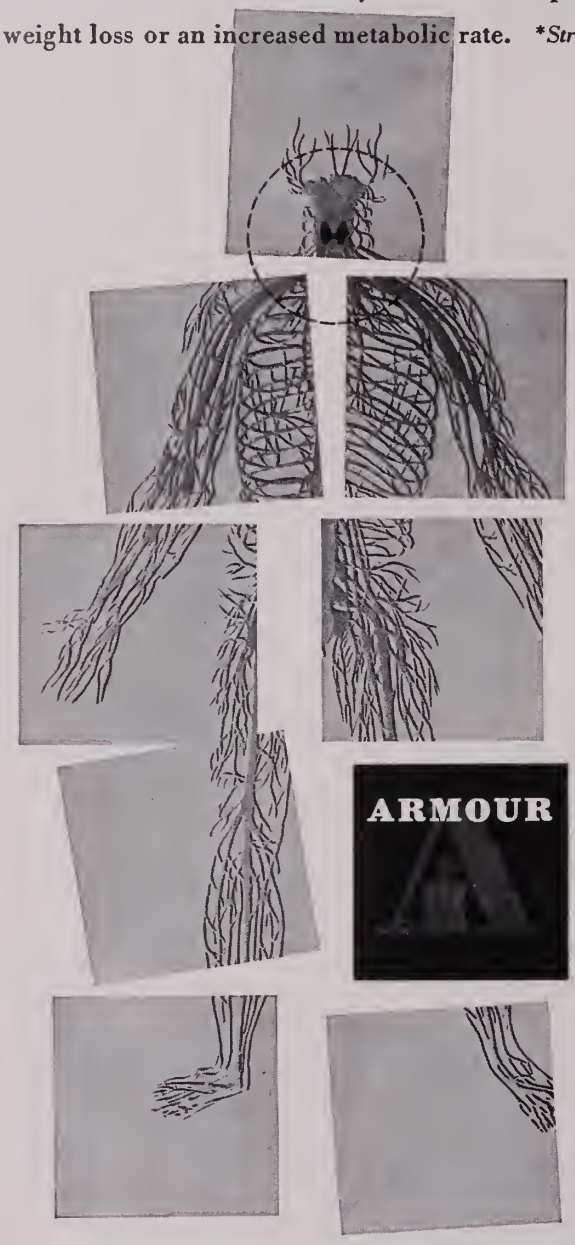
"An Evaluation of the Jejunal Interposition Operation for Certain Disorders Involving the Cardioesophageal Junction," George I. Thomas and K. Alvin Merindino, Seattle.

Panels

Symposium and panel discussion on "Pruritus Ani et Vulvae and Other Dermatoses of the Anogenital Area," William M. Wilson, Portland.

(Continued on page 1062)

Serum lipids and thyroid medication Recognition of the significant relation between serum lipids and atherosclerosis has resulted in a new interest in the role of hormones in this picture. Desiccated thyroid may reduce serum lipid levels remarkably in many patients without appreciable weight change, as reported by Strisower and co-workers.* Daily dosage ranged approximately from 3 to 5 grains. The authors conclude that treatment with desiccated thyroid need not produce adverse effects such as undesired weight loss or an increased metabolic rate. **Strisower, B., et al.: Lancet 1:120, 1957.*

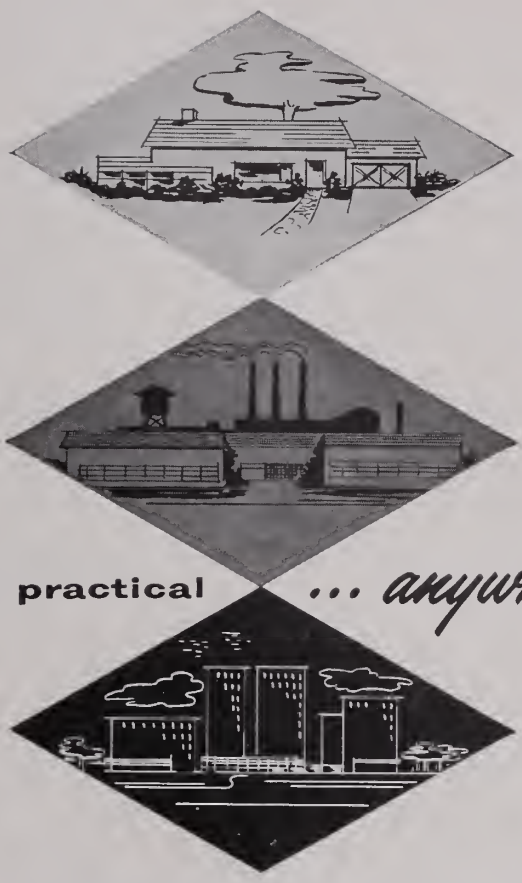


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(Continued from page 1059)

Panel discussion on "Management of Complications of Duodenal Ulcer," Joel W. Baker, Seattle.

Panel on "Hemolytic Anemias-Mechanisms and Management," Arno G. Motulsky, Seattle.

Panel discussion on "Noise: Is it a Health Problem?", Thrift G. Hanks, Seattle.

Panel discussion on "Deafness in Children, Etiology, Diagnosis and Management," moderated by John F. Tolan, Seattle.

Panel on "Asthma," Paul Van Arsdel, Seattle.

Panel on "Carcinoma of the Lower Urinary Tract," Franz J. Buschke, Seattle.

Panel on "Surgery Cases: Ventral Hernia; Radical Breast; Gastric Resection," Allen M. Boyden, Portland.

Pediatric Clinic, Robert A. Aldrich, Seattle.

Diagnostic Problem Clinic, Howard P. Lewis, Portland.

Special Discussions

The Northwest provides three officers of sections. Dean Parker of Seattle is Vice-Chairman of the Section on Urology, Dan Moore of Seattle is Secretary of the Section on Anesthesiology and Charles McArthur of Olympia is Chairman of the Section on General Practice. Dr. McArthur presented the Chairman's Address, "The Physician Himself," in which he urged physicians to pay more attention to their own health.

Another special presentation was that of a guest of honor. This was presented to the Section on Laryngology, Otology and Rhinology by Guy L. Boyden of Portland.

Only two films came from this area. Joel T. Baker and John H. Walker of Seattle presented a film on "Cholecystectomy and Operative Cholangiography." The other was on "Bilateral Upper Extremity Amputation" by Francis M. Brink and David E. Sullivan, both of Spokane.

A number participated in discussion of papers. The following discussants and topics were listed in the program:

Robert Bruce, Seattle, commissurotomy; George Saslow, Portland, lysergic acid; Fred Plum, Seattle, single seizure; Karl Martzloff, Portland, carcinoma of cervix, in situ; Ronald P. Neilson, Portland, premarital examination; Raphael B. Durfee and Vinton D. Sneeden of Portland, stromal endometriosis; Donald F. McDonald, Seattle, urinary stone analysis; Franz J. Buschke, Seattle, irradiation cystitis.

Exhibits

The Northwest was well represented in the Scientific Exhibit. Perennially popular exhibit on fractures listed Thomas Angland, Yakima, Robert Florence, Tacoma and James Miller, Seattle. Demonstrations in fresh tissue pathology were conducted by Vincent Sneeden, Portland, Jeff Minckler, Portland and Charles Larson, Tacoma. Robert Bruce, Seattle, participated in demonstration at a special exhibit on pulmonary function.

Scientific exhibits were:

"Left Heart Catheterization," G. H. Lawrence and R. M. Paine, Seattle.

"Chloroquine Therapy in Rheumatoid Arthritis," Robert E. Rinehart, Wheeler.

"Allergy to Stinging Insects," Robert A. Stier and Robert F. E. Stier, Spokane.

"Obstructing Bronchiolitis: A Medical Emergency," E. H. Morgan, H. L. Wilson and H. R. Pearsall, Seattle.

"The Evolution of Orbital Implants," Wood Lyda and J. L. Hargiss, Seattle.

"Comparison of Myelography and Discography in Diagnosis of Low Back Disability," Norman M. Harris, Donald deF. Bauer and Anthony J. Smith, Coos Bay.

"Cow's Milk Allergy in Infants," Norman W. Clein, Seattle.

House of Delegates

Sessions of the House of Delegates were quite well attended by non-seated members of AMA, medical society executives, newspaper reporters and guests. At this meeting it appeared that the number of those sitting outside the delegate area

(Continued on page 1065)

HOUSE OF DELEGATES—*Facing Page*: Figs. 1 and 2. House sessions were well attended. Fig. 3. Oregon delegates A. O. Pitman of Hillsboro and E. G. Chuinard of Portland. Fig. 4. First row unidentified. Second row, left to right, Dr. Chuinard; Dr. Pitman; Idaho delegate Raymond L. White, Boise; and Washington delegate A. G. Young, Wenatchee. Fig. 5. Washington delegates A. G. Young, Jess W. Read of Tacoma and M. Shelby Jared of Seattle discuss a point with former AMA president John W. Cline of San Francisco. Fig. 6. Dr. White, Dr. Young, Dr. Read and Dr. Jared. Fig. 7. Hawaii delegate Harry L. Arnold, Jr., of Honolulu and Alaska delegate Milo H. Fritz of Anchorage. Fig. 8. California delegate Lewis Alesen of Los Angeles with Luis Roberto Guzman-Lopez of San Juan, P.R., president of the Puerto Rico Medical Association, and Carmen Beriot also of San Juan, alternate delegate from Puerto Rico.



















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Fig. 1. Reference Committee on Hygiene, Public Health and Industrial Health: from left, Edward Flood, New York; Earl F. Leininger, Nebraska; Chairman Cyril J. Attwood, California; George D. Johnson, South Carolina; and William F. Brennan, Pennsylvania. Fig. 2. Reference Committee on Legislation and Public Relations: Paul D. Foster, California; J. Arnold Bargen, Minnesota; Chairman R. J. Azzari, New York; Dan C. Ogle, U.S. Air Force; and Francis T. Holland, Florida. Fig. 3. Reference Committee on Insurance and Medical Service: Thurman Givan, New York; J. Wallace Hurff, New Jersey; Chairman Thomas W. McCreary, Pennsylvania; H. Relton McCarroll, Section on Orthopedic Surgery; and John S. DeTar, Michigan. Fig. 4. Reference Committee on Medical Education and Hospitals: Walter C. Bornemeier, Illinois; Chairman Norman A. Welch, Massachusetts; Peter Murray, New York; Willard A. Wright, North Dakota; and Wesley Hall, Nevada.

(Continued from page 1062)

at least equaled and may have surpassed the number of seated delegates. Such attendance has been growing in recent years and represents growing interest of AMA members in affairs of their organization. It is a highly desirable trend and needs to be encouraged although increasing demand for seats in the visitors' section may tax facilities of hotels without ample balcony space to care for overflow from the floor.

The usual committee reports, supplementary reports of the Board of Trustees and 64 resolutions were handled with dispatch by the House. Two flurries of debate were touched off as reference committees made their reports. One, as anticipated, concerned trouble with the Welfare Fund of the United Mine Workers.

This has been the subject of a great deal of discussion at meetings of AMA and within the medical associations of states in mining regions. Conflict has been most acute in Pennsylvania and Colorado. The Fund has been accused of dictating medical practice through a closed panel system of providing care for its beneficiaries and practitioners have been accused of padding bills, doing unnecessary surgery and otherwise causing excessive costs. Medical Director of the Fund, Warren Draper, has incurred the wrath of a number of medical society officers who believe that most of his charges against private practitioners are unfounded.

Debate at San Francisco grew out of consideration of a Board of Trustees supplemental report which, in turn, was a development from two resolutions presented at the Philadelphia meeting, December, 1957. They called for presentation of medicine's side of the controversy to the profession and subsequently to the public. Joint committee of the Council on Medical Service and the Council on Industrial Health studied the problem and reported to the Board that more study should be undertaken before implementing the directives in the resolutions. There was some question about the scope of campaign to be undertaken, since one of the resolutions mentioned "all third party mechanisms." There was question about definition of the term *free choice.* There was some feeling that the campaign should be conducted by state associations rather than the national organization because of differences in local conditions.

All of these ideas were taken into consideration by the reference committee which brought in a report merely asking the Board of Trustees to consider a campaign. Sawyer of Colorado made a vigorous appeal for immediate action, stating that the problem is national, not local,

(Continued on page 1068)

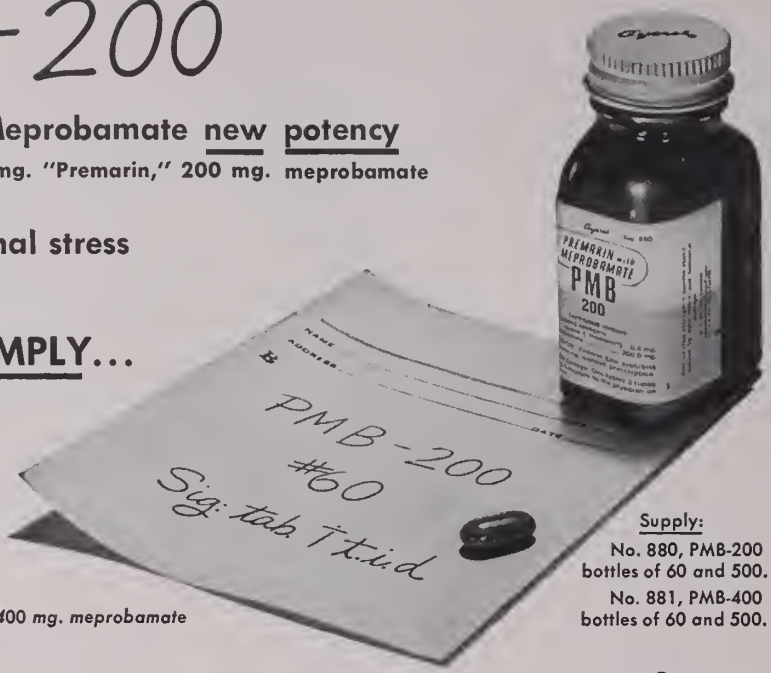
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NEW YORK STATE JOURNAL OF MEDICINE

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— *Prof. F. Caramazza*
ITALIAN JOURNAL OF OPHTHALMOLOGY

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— *William C. Marsh*
U. S. ARMED FORCES MEDICAL JOURNAL

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(Continued from page 1065)

and citing two suits in Colorado, one seeking permanent injunction against enforcement of the Colorado Association's code of ethics. He moved an amendment relieving the Council on Medical Service from further responsibility and directing the Board of Trustees to order immediate action to carry out provisions of the 1957 resolution. Part of that resolution read as follows:

"Resolved, that this House of Delegates condemns the current attitude and method of operation of the UMWA Welfare and Retirement Fund as tending to lower the quality and availability of medical and hospital care to its beneficiaries;"

After discussion by twelve additional delegates, most of whom supported Sawyer, his amendment to the reference committee report was carried, 110 for, 72 against.

Health Agencies

The second flurry of debate was somewhat more surprising. It arose when the Reference Committee on Hygiene, Public Health and Industrial Health made its report on three resolutions all dealing with voluntary health agencies. Gist of the three was that AMA should support the principle of voluntary agencies and approve their independent fund raising campaigns. The reference committee offered a substitute resolution suggesting a top level conference between the United Funds, the voluntary agencies and American Medical Research Foundation.

McClendon of California immediately proposed an amendment reiterating previously voiced support of the voluntary agencies, incorporating belief that these agencies should be free to conduct their own business without hindrance and asking that the American Medical Research Foundation not hinder the voluntary agencies.

The subject was discussed by several, including two former AMA presidents, Elmer Hess and John Cline. United Funds were criticized severely for interference and even for exertion of pressure against officials and laymen who supported the voluntary agencies.

Motion to table the report was lost in an unmistakable register of desire to take position on the issue. The amendment carried easily.

Other business of the House was conducted with little controversy on the floor although several of the reference committees listened to lengthy discussion during their open sessions. (Some members of AMA may not realize that they are welcome to present views to any reference committee and thus have direct influence on policy formulation by the House. Without unanimous consent, however, one not seated in the House cannot address that body while fully convened and in conduct of its business. Privilege of appearing before reference committees is in addition to that of exerting influence through regular channels of county and state organizations. Delegates may be given specific directives by state organizations if there is sufficient interest in any proposal.)

Social Security

Resolutions on social security may be expected at any session. Seven were presented at San Francisco. Four of these were from the Medical Society of the State of New York, indicating desire of majority of members in that state to be included in the social security scheme.

Two of the New York resolutions called on the House to abandon previously taken position in opposition to compulsory inclusion of self employed physicians in social security. These were rejected unanimously. Two of the resolutions asked for poll of membership, one of them suggesting that delegates had acted in a paternal manner in making the 1957 decision against social security. The reference committee was of the opinion that delegates were sufficiently well informed to represent the views of American physicians on the subject. The House concurred by voting not to approve the resolutions.

One from the Connecticut State Medical Society was rejected for another reason. This resolution intimated that delegates might vote in accord with their personal views and not necessarily as their constituents might wish. The Connecticut Society, therefore, asked for a nationwide referendum. The request was not approved because there is no provision in AMA Constitution of Bylaws for referendum procedure.

The Connecticut Delegation presented another resolution, likewise rejected by the

(Continued on page 1070)

Scientific and Technical Exhibits—*Facing Page*: Information on a large variety of subjects was available to those visiting the scientific and technical exhibits. First photograph shows the 1958 Cadillac club coupe which was awarded by the White Laboratories. The company awards a Cadillac at each Annual Session and lucky ticket holder this year was Charles Weller of Larchmont, New York.

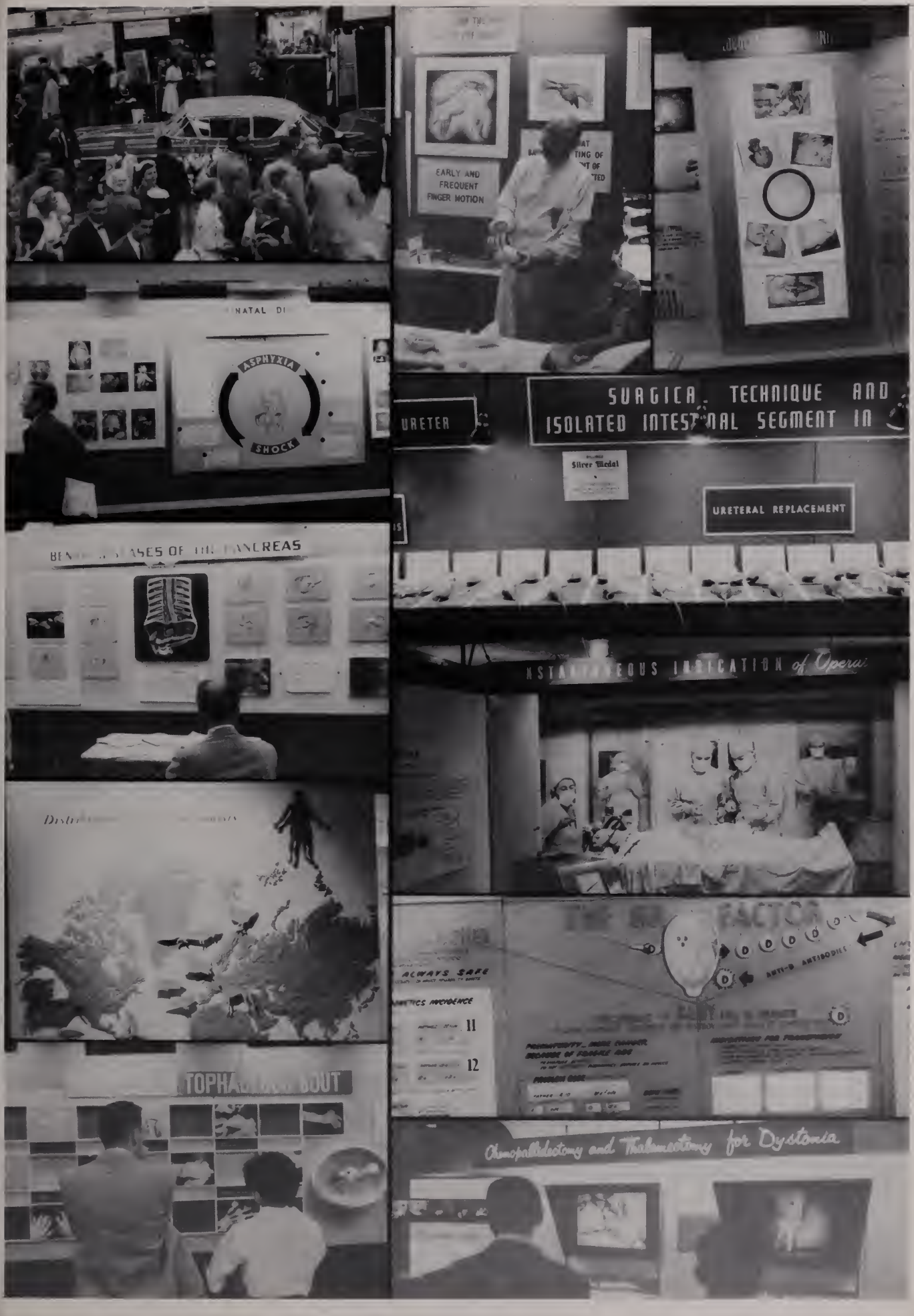

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Fig. 1. R. T. Stormont, Director, Division of Councils on Therapy and Research, and F. J. L. Blasingame, general manager of AMA. Fig. 2. George Lull, executive vice-president of AMA, and Milo T. Harris, president of Washington State Medical Association. Fig. 3. Leland McKittrick, Massachusetts, chairman of Council on Medical Education and Hospitals, and Harland English, Illinois, member of the Council. Fig. 4. Fount Richardson, president of Arkansas State Medical Association, and William J. Kennard, acting director, Washington Bureau of AMA.

(Continued from page 1068)

House. Citing the fact that Connecticut physicians had voted overwhelmingly for social security coverage, the resolution called for endorsement of state-by-state participation under Title II of the Social Security Act.

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A resolution from the Texas Delegation expressed hearty dislike for compulsion and strong opposition to socialization of the profession through social security. This resolution was modified by the reference committee and adopted by the House with the following conclusion:

"Resolved, that the House of Delegates of the American Medical Association unequivocally opposes the compulsory inclusion of self employed physicians in the Social Security System."

Oregon Resolution Adopted

A resolution presented by the Oregon Delegation received favorable comment by the reference committee and was adopted by the House. It directs the Board of Trustees to petition Congress to amend Section 6 of Public Law 85-316 to control, in the interest of the public health and welfare, admission of children with severe communicable disease.

The law referred to permits American families to adopt alien children. The Oregon resolution pointed out that children admitted for such adoption have not been required to meet immigration restrictions relating to communicable disease and that a number of Korean children brought in for adoption have been found to be infected with severe communicable disease, including tuberculosis. It also stated that children found to be suffering from severe communicable disease should be given immediate care and treatment. The reference committee commended those who have opened their homes to Korean children and approved the resolution.



The Hektoen Gold Medal Award, presented for original investigation, was presented to Alvin L. Watne, Stuart S. Roberts, Ruth G. McGrath, Elizabeth A. McGrew and Warren H. Cole of the University of Illinois for their exhibit on Cancer Cells in the Circulating Blood.

Veterans Administration

Veterans Administration activities in care of

(Continued on page 1072)



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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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Fig. 1. AMA Past-President Elmer Hess of Pennsylvania. Fig. 2. J. J. Moore, Chicago, retiring treasurer of AMA. Fig. 3. Julian Price of South Carolina, AMA Trustee. Fig. 4. Milo Fritz, delegate from Alaska. Fig. 5. T. C. Terrell, delegate from Texas. Fig. 6. Walter L. Bierring of Iowa was introduced by J. J. Moore at right. Fig. 7. George Lull, executive vice-president of AMA. Fig. 8. Edgar V. Allen of Minnesota, delegate from Section on Experimental Medicine and Therapeutics.

(Continued from page 1071)
veterans with non-service-connected disabilities was once more condemned. Final form of the resolution adopted was:

"Whereas, According to special report 85-3 of the Washington Office of the AMA, the Federal government spent $619,614,000 on hospitalized medical care of veterans in VA hospitals in 1957 of which about 75 per cent had non-service connected disabilities; and

"Whereas, Ways and means of obtaining economy in Federal government are allegedly being sought by Congress at this time; therefore be it



Louis M. Orr (1) of Orlando, Fla., receives congratulations on becoming president-elect of AMA from F. J. L. Blasingame, executive vice-president of AMA.

"*Resolved,* That the House of Delegates of the American Medical Association urge congressional action to restrict hospitalization of veterans at VA hospitals to those with service connected disabilities; and be it further

"*Resolved,* That the American Medical Association suggest to the Dean's committees that they restrict their activities to Veterans Administration hospitals admitting only patients with service-connected disabiliies."

Hypnosis

Report from the Council on Mental Health on Hypnosis was transmitted to the House through the Board of Trustees. Its approval puts AMA on record as supporting medical use of hypnosis, approving participation by members of the medical and dental professions in high level research into unknown aspects of hypnosis and as vigorously condemning use of hypnosis for entertainment purposes. The report is result of extensive investigation and study by the Council on Mental Health which for this purpose constituted itself as a committee of the whole. Complete report of the Council is to be published in the *Journal of the American Medical Association.*

Officers

A number of changes occurred in official position, some in the normal course of succession and

some as result of the reorganization initiated last year. Gunnar Gundersen of Wisconsin was installed as president and Louis M. Orr of Florida won unanimous election to succeed him as president-elect. Dr. Orr has been popular as vice-speaker for several years.

W. Linwood Ball of Virginia was named vice-president, E. Vincent Askey of California was reelected speaker and Norman A. Welch of Massachusetts was chosen as vice-speaker.

Raymond McKeown of Oregon was unopposed to succeed himself as trustee. His election last year was to fill one year of an unexpired term. This recognition of his numerous contributions places him on the Board for a normal five-year term. Others elected were Warren Fury of Illinois, also unopposed and R. B. Robins, Arkansas who won handily over two other nominees. Robins is to serve for the unexpired term of F. J. L. Blasingame. Leonard Larson of North Dakota was chosen by the Board of Trustees as its chairman.

George A. Woodhouse was reelected to the Judicial Council, John Z. Bowers of Wisconsin and Leland S. McKittrick of Massachusetts were named to the Council on Medical Education and Hospitals, the latter to succeed himself. R. B. Chrisman of Florida and J. F. Burton of Oklahoma were returned to the Council on Medical Service. R. B. Roth of Pennsylvania was also placed on that Council. William Stovall of Wisconsin, William Hyland of Michigan and Walter Bornemier of Illinois were elected to the Council on Constitution and Bylaws.



A handsome etched Oath of Hippocrates, a gift of the physicians of Oklahoma, was presented to F. J. L. Blasingame as a complement to his office in Chicago as general manager of AMA. E. C. Mohler, president of Oklahoma State Medical Association, offered his congratulations to Dr. Blasingame, at right, who assumed the AMA general managership January 1.

McKeown Is Secretary-Treasurer

Reorganization placed F. J. L. Blasingame as general manager and permitted the Board to elect Raymond McKeown to the newly created office of secretary-treasurer. George Lull becomes executive vice-president and E. B. Howard, assistant executive vice-president.

The House voted to schedule Miami Beach as site for the 1960 annual session. Chicago has been selected previously but will be unable to accommodate the organization properly due to delay in construction of a proposed new lakeside convention hall. The 1961 session will be held in New York but site for the 1962 meeting has not been selected. •



Northwest breakfast at the Sheraton-Palace Hotel. This meeting of representatives of the three Northwest states has become a valuable part of AMA meetings. It was started in New York at the 1957 meeting and provides an opportunity for the three states to exchange views on problems of mutual interest.

Present were Drs. Harris, Cleland, Berge, Young, Miller, White, McKeown, Baum, Pitman, Chuinard, Hartley, Calhoun, Read, Jared, Tucker and Woolley, and Messrs. Miller, Lapsley, Bird, McKeown, Layton, LaFray, Ramsey, Neill and Steen.

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—A. Edward Newton

RECEIVED

The following books hove been received. Publicotion of this ocknowledgment is to be considered odequote return to the sender. Selected titles will be reviewed os spoce permits.

A Manual on Cardiac Resuscitation. Ed 2. By Robert M. Hosler, M.D., F.A.C.S., Cleveland, Ohio. 208 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Mould Fungi and Bronchial Asthma: A Mycological and Clinical Study. Vol. I. By P. J. Van Der Werff, Head of Amsterdam Clinic for Allergic Diseases. Foreword by Prof. Dr. Johanna Westerdijk, Director of Centraalbureau voor Schimmelcultures (the Mould Culture Center) Baarn, Netherlands. 174 pp. Illustrated. Price $7.50. Charles C Thmoas, Springfield, Ill. 1958.

Ego Structure in Paranoid Schizophrenia—A New Method of Evaluating Projective Material. By Luise J. Zucker, Ph.D. 186 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Religious Doctrine and Medical Practice. By Richard Thomas Barton, M.B., B.S., M.D., F.A.C.S., Associate Consultant, Unviersity of California. Foreword by Raymond B. Allen, M.D., Chancellor, University of Calfiornia at Los Angeles. 94 pp. Price $3.75. Charles C Thomas, Springfield, Ill. 1958.

A Primer of Cerebral Palsy. By Joseph D. Russ, M.B., M.D., F.A.A.P., F.A.A.C.P., Assistant Professor of Pediatrics, Tulane University School of Medicine; Senior Pediatrician, Touro Infirmary; Medical Director, Cerebral Palsy Center of Greater New Orleans; and Hyman R. Soboloff, B.A., M.B., M.D., F.A.A.O.S., F.A.A.C.P., Asssitant Professor of Orthopedics, Tulane University School of Medicine; Medical Director, Louisiana State Cerebral Center. 77 pp. Illustrated. Price $4.00. Charles C Thomas, Springfield, Ill. 1958.

Electrocardiography. By Michael Bernreiter, M.D., F.A.C.P., Assistant Clinical Professor of Medicine, University of Kansas Medical School; Chief of Electrocardiography, St. Mary's Hospital, Kansas City, Missouri; Fellow of American College of Cardiology and Fellow of American College of Chest Physicians. 134 pp. Illustrated. Price $5.00. J. B. Lippincott Co., Philadelphia and Montreal. 1958.

Fifty Years of Neurosurgery—A Personal Story. By Ernest Sachs, M.D. 186 pp. Price $3.50. Vantage Press, Inc., New York. 1958.

Memoirs of a G.P. By Otis Marshall, M.D. 155 pp. Price $3.50. Vantage Press, Inc., New York. 1958.

Cancer and the Atomic Age. By Clement A. Tavares, M.D. 198 pp. Price $3.50. Vantage Press, Inc., New York. 1958.

Objective Approaches to Treatment in Psychiatry. By Leo Alexander, M.D., Director, Neurobiologist Unit, Division of Psychiatric Research, Boston State Hospital; Clinical Instructor in Psychiatry, Tufts University Medical School, Boston, Mass. 139 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Biology of Neuroglia. Compiled and edited by William F. Windle, Ph.D., Sc.D., Chief of Laboratory of Neuroanatomical Sciences, National Institute of Neurological Diseases and Blindness, National Institutes of Health, Public Health Service, Department of Health, Education and Welfare, Bethesda, Maryland. 340 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

Medical Sociology: Theory, Scope and Method. By Norman G. Hawkins, B.Ed., Ph.D., Assistant Professor of Medical Sociology, University of Texas Medical Branch. 290 pp. Price $6.75. Charles C Thomas, Springfield, Ill. 1958.

Fundamentals In Cardiology. By John B. Wild, M.D., Assistant Professor, Department of Internal Medicine, Member of the Cardiovascular Laboratory, University Hospital, Iowa City, Iowa. 83 pp. Illustrated. Price $4.50. Charles C. Thomas, Springfield, Ill. 1958.

Signs, Symptoms and Treatment of Certain Acute Intoxications. Ed. 2. By William B. Deichmann, Ph.D., Professor and Chairman, Department of Pharmacology, University of Miami, School of Medicine, Coral Gables, Florida; and Horace W. Gerarde, M.D., Ph.D., Head Toxicologist, Esso Research and Engineering Co., Medical Research Division, Linden, New Jersey and The Bureau of Biological Research, Rutgers, The State University, New Brunswick, New Jersey. 154 pp. Price $3.75. Charles C Thomas, Springfield, Ill. 1958.

The Management of Childhood Asthma. By Frederic Speer, M.D., Assistant Clinical Professor of Pediatrics, The University of Kansas School of Medicine; Director of Pediatric Allergy Clinic; The University of Kansas Medical Center; Director of Allergy Clinic, Children's Mercy Hospital; Attending Pediatrician, Bethany Hospital, Providence Hospital and St. Margaret's Hospital, Kansas City; Fellow of American Academy of Pediatrics and American College of Allergists. 116 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1958.

Electrocardiographic Analysis, Vol. I: Biophysical Principles of Electrocardiography. By Robert H. Bayley, M.D., Professor of Internal Medicine, Director of Heart Station, University of Oklahoma School of Medicine and University Hospitals, Oklahoma City. 237 pp. Illustrated. Price $8.00. Paul B. Hoeber, Inc. 1958.

Aids to Medical Diagnosis. Ed. 8. By G. E. Frederick Sutton, M.C., M.D. (Lond.), F.R.C.P., Consultant Physician, United Bristol Hospitals; Consultant Physician to Bristol Regional Hospital Board; Consultant Cardiologist to Ministry of Pensions; Teacher in Clinical Medicine, University of Bristol. 399 pp. Price $3.50. Bailliere, Tindall and Cox, London. 1958. Distributed by The Williams & Wilkins Co., Baltimore.

(Continued on page 1077)



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(Continued from page 1075)

Life Insurance and Medicine—The Prognosis and Underwriting of Disease. Edited by Harry E. Ungerleider, M.D., F.A.C.P., Director of Medical Research, The Equitable Life Assurance Society of the United States; Formerly Chairman of the Board of Life Insurance Medicine; and Richard S. Gubner, M.D., F.A.C.P., Associate Director of Medical Research, The Equitable Life Assurance Society of the United States; Clinical Associate Professor of Medicine, State University of New York College of Medicine. 994 pp. Price $16.50. Charlse C Thomas, Springfield, Ill. 1958.

Physics for the Anaesthetist Including a Section on Explosions. Ed. 2. By Sir Robert Macintosh, D.M., F.R.C.S.E., F.F.A.R.C.S., M.D. (hon. causa) Beunos Aires and Aix-Marseilles; Nuffield Professor of Anaesthetics, University of Oxford; William W. Mushin, M.B., B.S., F.F.A.R.C.S., Professor of Anaesthetics, Welsh National School of Medicine, University of Wales; Formerly First Assistant, Nuffield Department of Anaesthetics, University of Oxford; and H. G. Epstein, M.D., Ph.D., F.F.A.R.C.S., First Assistant, Nuffield Department of Anaesthetics, University of Oxford. Illustrated by Miss M. McLarty and Miss M. Beck. 443 pp. Price $15.50. Charles C Thomas, Springfield, Ill. 1958.

Review of Physiological Chemistry. Ed. 6. By Harold A. Harper, Ph.D., Associate Professor of Physiological Chemistry, University of California School of Medicine, San Francisco; Biochemist Consultant to Metabolic Research Facility, U.S. Naval Hospital, Oakland; Biochemist Consultant to St. Mary's Hospital, San Francisco. 376 pp. Price $4.50. Lange Medical Publications, Los Altos, Calif. 1957.

Correlative Neuroanatomy and Functional Neurology. Ed. 9. By Joseph G. Chusid, M.D., Attending Neurologist, St. Vincent's Hospital, New York; and Joseph J. McDonald, M.S., M. Sc.D., M.D., Dean of Medical Faculty, American University of Beirut, Beirut, Lebanon; Formerly, Professor of Surgery, Columbia University, New York. Illustrated by Ralph Sweet. 344 pp. Price $4.50. Lange Medical Publications, Los Altos, Calif. 1958.

Clinical Physiology of Physical Fitness and Rehabilitation. By Ernst Jokl, M.D., Professor and Medical Director, Rehabilitation Center, University of Kentucky. 194 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

Preservation of Youth: Essays on Health. By Moses Men Maimon (Maimonides). Translated from the Original Arabic. Introduction by Hirsch L. Gordon, M.D., Ph.D., D.H.L. 92 pp. Price $2.75. Philosophical Library, New York. 1958.

Psychopharmacology: Pharmacologic Effects on Behavior. Edited by Harry H. Pennes, M.D., D.Med. Sci. (Neurology), Consultant in Psychiatric Research, Department of Mental Hygiene, New York Psychiatric Institute, New York, New York. 41 Participants. 362 pp. Price $8.00. Paul B. Hoeber, Inc., New York. 1958.

Essentials of Gynecology. By E. Stewart Taylor, M.D., Professor and Head of Department of Obstetrics and Gynecology, University of Colorado School of Medicine, Denver, Colorado. 502 pp. 343 illustrations, 4 in color. Price $12.00. Lea & Febiger, Philadelphia. 1958.

Crime and Insanity. Edited by Richard W. Nice. 280 pp. Price $6.00. Philosophical Library, New York. 1958.

Love, Skill and Mystery. By Theodore Bovet, M.D. 183 pp. Price $3.50. Doubleday & Co., Inc., Garden City, New York. 1958.

Funadmentals of General Surgery. By John Armes Guis, M.D., D.Sc. (Med.), F.A.C.S., Professor of Surgery, College of Medicine, State University of Iowa. 720 pp. Illustrated. Price $12.50. Year Book Publishers, Inc., Chicago. 1957.

The Pasteur Fermentation Centennial 1857-1957. A Scientific Symposium on the occasion of the 100th anniversary of the publication of Louis Pasteur's Memoire sur la fermentation appelee lactique. 207 pp. Chas. Pfizer & Co., Inc., New York. 1958.

Orthopedic Diseases: Physiology—Pathology—Radiology. By Ernest Aegerter, M.D., Professor of Pathology and Director of Department of Pathology, Temple University Medical Center and School of Medicine; Professor of Orthopedic Pathology, University of Pennsylvania Graduate School of Medicine; Chief in Pathology, Philadelphia General Hospital; Consultant in Pathology, Frankford Hospital, United States Naval Hospital and Veterans Administration Hospitals, Philadelphia; and John A. Kirkpatrick, Jr., M.D., Radiologist, St. Christopher's Hospital for Children; Assistant Professor of Radiology, Temple University Medical Center; Radiologist, Children's Hospital; Attending Physician (Radiology), Veterans Administration Hospital, Philadelphia. 602 pp. 354 figures. Price $12.50. W. B. Saunders Co., Philadelphia and London. 1958.

Modern Clinical Psychiatry. Ed. 5. By Arthur P. Noyes, M.D., Superintendent, Norristown State Hospital, Norristown, Pennsylvania; and Lawrence C. Kolb, M.D., Professor and Executive Officer, Department of Psychiatry, College of Physicians and Surgeons, Columbia University; Director, New York State Psychiatric Institute. 694 pp. Price $8.00. W. B. Saunders Co., Philadelphia and London. 1958.

Electronic Instrumentation for the Behavioral Sciences. By Clinton C. Brown, Ph.D., Chief, Psychophysiologic Research, Veterans Administration Hospital, Perry Point, Maryland; and Rayford T. Saucer, Ph.D., Research Associate, Psychophysiologic Laboratory, Veterans Administration Hospital, Perry Point, Maryland. 160 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Psychology of Medical Practice. By Marc H. Hollender, M.D., Professor and Chairman, Department of Psychiatry, State University of New York, Upstate Medical Center, and Director, Syracuse Psychiatric Hospital. 276 pp. Price $6.50. W. B. Saunders Co., Philadelphia. 1958.

Principles of Internal Medicine. Edited by T. R. Harrison, Raymond D. Adams, Ivan L. Bennett, Jr., William H. Resnik, George W. Thorn, M. M. Wintrobe. 1782 pp. Illustrated. Price $18.50. The Blakiston Division, McGraw-Hill Book Company, Inc., New York. 1958.

Medical Electrical Equipment—Principles, Installation, Operation and Maintenance of Electrical Equipment used in Hospitals and Clinics. By Robert E. Molloy, M.B., F.F.A., R.C.S., Advisory Editor; and 21 Contributors. 312 pp. 238 illustrations. Price $15.00. Philosophical Library, Inc., New York. 1958.

Milestones in Modern Surgery. By Alfred Hurwitz, M.D., Professor of Surgery, State University of New York College of Medicine at New York City; Director of Surgery, Maimonides Hospital, New York; and George A. Degenshein, M.D., Assistant Attending Surgeon, Maimonides Hospital; Associate Attending Surgeon, Coney Island Hospital, New York. Foreward by J. Englebert Dunphy, M.D., Professor of Surgery, Harvard Medical School. 520 pp. Illustrated. Price $15.00. Paul B. Hoeber, Inc., New York. 1958.

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Ciba Foundation Symposium on the Cerebrospinal Fluid—Production, Circulation and Absorption. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Cecelia M. O'Connor, B.Sc. 335 pp. 141 illustrations. Price $9.00. Little, Brown & Co., Boston. 1958.

Orr's Operations of General Surgery. Ed. 3. By George A. Higgins, M.D., F.A.C.S., Associate Professor of Surgery, University of Kansas School of Medicine; Lecturer in General Surgery and Surgical Technique, University of Kansas City School of Dentistry; Chief of Surgical Service, Veterans Administration Hospital, Kansas City, Missouri; and Thomas G. Orr, Jr., M.D., F.A.C.S., Associate in Surgery, University of Kansas School of Medicine; Surgeon, Veterans Administration Hospital, Kansas City, Missouri. 1016 pp. 1990 illustrations on 835 figures. Price $20.00. W. B. Saunders Co., Philadelphia. 1958.

Pathology for the Physician. Ed. 6, thoroughly revised. By William Boyd, M.D., Dipl. Psychiat., M.R.C.P. (Edin.), Hon. F.R.C.P. (Edin.), F.R.C.P. (Lond.), F.R.C.S. (Can.), F.R.S. (Can.), L.L.D. (Sask.) (Queen's), D.Sc. (Man.), M.D. (Oslo), Professor Emeritus of Pathology, The University of Toronto; Visiting Professor of Pathology, The University of Alabama; Formerly Professor of Pathology, The University of Manitoba and the University of British Columbia. 900 pp. 489 illustrations and 12 plates in color. Price $17.50. Lea & Febiger, Philadelphia. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Harlamert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

THROMBELASTOGRAPHY. By Pietro de Nicola, M.D., Associate Professor, Department of Medicine, University of Pavia, Italy. 110 pp. Illustrated. Price $5.50. Charles C Thomas, Springfield, Ill. 1957.

This brief monograph describes the author's results of extensive investigations on thrombelastography, which graphically measures the changes in viscosity and elastic properties of blood as it clots. Detailed description of the apparatus and methods for performing the tests are given. The time of clotting and the rate and degree of retraction are recorded on a moving kymograph. First introduced by Hartert in Germany 15 years ago, this technique has been studied mainly by European coagulationists. To me the procedure is a quantitative and a more refined method of measuring whole blood clotting time and clot retraction. Unfortunately no comparison is made with the latter test which is widely used as a quantitative test for platelet function in this country. Many European workers feel that thrombelastography describes functioning clotting characteristics of whole blood within the intact vascular system.

The method does not define basic etiologic abnormalities in the formation of thromboplastin or pro-



thrombin conversion. The author's studies reveal that in some cases with normal platelet counts, clot formation is abnormal due presumably to altered platelet function, as is found in patients receiving Dextran and in several post-splenectomized patients with previous immune type thrombocytopenia. Cortisone administered to patients and fribrinogen added in vitro in high concentration consistently resulted in greater elasticity of the clot. These findings may explain the benefit of these two substances in patients with severe hemorrhage due to thrombocytopenia.

Unfortunately the method yields primarily descriptive results from which little new knowledge can be added to the field of coagulation. No mention is made of decreased PTC levels in patients receiving Dicumarol or Dicumarol-like drugs. Some graphs are inadequately explained. The English is well chosen but the book is not easy reading because of a profusion of detailed tests.

The monograph is recommended only to coagulationists and to physiologists. The latter may find the method useful in screening the effects of drugs on blood coagulation.

J. R. Hartman, M.D.

CORTISONE THERAPY MAINLY APPLIED TO RHEUMATIC DISEASES. By J. H. Glyn, M.A. (Cantab.), M.D., M.R.C.P., D. Phys. Med., Consultant in Physical Medicine to Prince of Wales and Tottenham Group of Hospitals. 162 pp. Price $10.00. Philosophical Library, Inc., New York. 1957.

This is a most comprehensive, complete and factual review of laboratory and clinical applications of this interesting group of compounds. Historical aspects and changing theoretical concepts are clearly presented. Every practicing physician and medical student should have a copy for study and reference. Indications for use of cortical steroids in rheumatic diseases as listed are too lenient but, in general, conform to safe practice; unfortunately the author fails to outline the entire concept and relegate steroids to their proper minor position in these diseases. The section on intraarticular injection is especially well done, the recommended dose being higher and perhaps more satisfactory than usually given in this country. It is unfortunate that the foreword to this work was written by "Cohen of Birkenhead," Britain's prime exponent of socialized medicine. Gleams of this are noted in the book.

R. E. Rinehart, M.D.

THERAPY FOR ANXIETY TENSION REACTIONS. By Gerhard B. Haugen, M.D., Assistant Clinical Professor of Psychiatry, University of Oregon Medical School, Portland; Henry H. Dixon, M.D., Clinical Professor and Head of Department of Psychiatry, University of Oregon Medical School; and Herman A. Dickel, M.D., Associate Clinical Professor, University of Oregon Medical School. 110 pp. Price $3.50. The MacMillan Co., New York. 1958.

The three authors address their monograph primarily to the nonpsychiatric physician. In a very readable, although occasionally folksy style, they describe the treatment of anxiety tension reactions with the muscle relaxation training originally devised by Edmund Jacobson. They assert that an office nurse can effectively accomplish this in approximately 20 sessions of 10 to 15 minutes duration each. Muscle relaxation is fortified by simple psychotherapeutic suggestions and reassurance. The treatment is extended over a period of 8 or 12 weeks with an additional observation time of several months during which the patient is seen only sporadically. The authors do not indicate precise treatment results but hint at a high and dramatic level of effectiveness.

In an attempt at a neurophysiologic explanation they suggest that "the muscle tensing comes first;

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the anxiety follows as a part of the general homeostasis." Reversing the traditional sequence of alarming cause and motor effect, they postulate "that when the brain gets messages informing it that the muscles are all tensed, it looks around to see what there is to be disturbed about; this is anxiety." It follows that the ability of muscle relaxation will abate the "habit of bracing and getting set for things to a point of overreaction." The cerebral cortex will no longer be bombarded by the excessively strong stimuli from the overly active striated musculature and hence no longer reflexly generate apprehension and fear. When the patient —including the doctor who must have experienced the method on himself before he can successfully teach it to others—has finally mastered the art of loosening his muscles "he can handle all his affairs without an occasional slip" and, should he so desire, join lustily in the author's proficient—however relaxed—polemics against various forms of psychotherapy, especially the arch-enemy—psychoanalysis.

Gert Heilbrunn, M.D.

GYNECOLOGIC AND OBSTETRIC PATHOLOGY; with Clinical and Endocrine Relations. Ed. 4. Emil Novak, M.D., D.Sc. (Hon., Trinity College, Dublin; Tulane), F.A.C.S., F.R.C.O.G. (Hon.), Late Assistant Professor Emeritus of Gynecology, The Johns Hopkins Medical School; and Edmund R. Novak, M.D., Assistant Professor of Gynecology, The Johns Hopkins Medical School. 650 pp. Illustrated. Price $14.00. W. B. Saunders Co., Philadelphia. 1958.

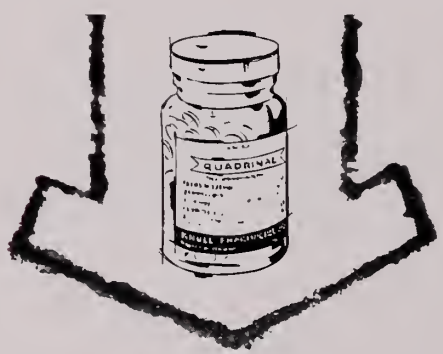
It is now 18 years since the first edition of this outstanding text made its original appearance. The current fourth edition reveals many changes, all of which are not textual. For example, this has now become most appropriately a father and son effort in the course of which the famous senior author died (1957). From a 496 page book with 427 illustrations originally, it has now grown to 650 pages with 683 illustrations without, however, sacrificing its compact, handy size. The paper and illustrations continue to be excellent while the red buckram binding provides a most attractive jacket. The printing, spacing and type impress me as being a distinct improvement over the previous editions.

The senior author has long been recognized as an outstanding authority in this field. Although the text contains an excellently selected bibliography which reflects current authoritative opinion, one also recognizes that it reflects the author's tremendous active personal experience in a field to which he had made numerous contributions. Additionally, it is gratifying to know that this text will be perpetuated by the well qualified junior author, a surgeon and clinician, who has figuratively grown up alongside a microscope in the atmosphere of gynecologic pathology and by James D. Woodruff in charge of the gynecological laboratory at Johns Hopkins.

The section dealing with breast pathology in the previous edition has been deleted from this one. This appears as an acceptable, in fact, a desirable change in no way lessening the value of the current revision, particularly, since it has been replaced by a chapter on exfoliative cytopathology by John K. Frost. Also completely new are the two chapters on the placenta by Robert Nesbitt, Jr.

As in previous editions a natural attractive narrative style makes for pleasant, interesting reading. One does not have to be highly conversant with pathology in order to enjoy and understand this text which is still confined to thirty-five chapters. It is a tribute to the authors' selectivity of material and their style that so much pertinent information is compressed into such limited space without giving it the apparent brevity and encyclopedic monotony of a compendium.

Just as the first edition filled a longstanding need for an authoritative, readable text in the English



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language, succeeding editions have continued this important function. In fact the book has been termed the pathologists' vade mecum of gynecologic pathology.

Each new edition has been well revised and up dated without becoming involved in distracting debate. One of its tremendous assets has always been its discussion and description of normal physiologic anatomic mechanism and lucid presentation of normal anatomy and embryology as introductions to sections where a discussion of their abnormalities follows. It is the observance of such excellent pedagogic principles that adds immeasurably to the book's interest, even to the point one dislikes to lay it aside.

A systematic review chapter by chapter is hardly required since this has been done with earlier editions. However one feels impelled to call attention to certain specific features. Two illustrations on opposing pages which immediately arrest attention depict, with unforgettable contrast, Bowen's disease and Paget's disease of the vulva.

The discussion of the problem encountered in diagnosing and differentiating early cancer of the cervix from other, at times confusing, non malignant histologic changes, is well and realistically presented. It is, however, difficult for the reviewer to go along with the authors when they state that (page 79-80) "the clinical history" is of great auxilliary importance to the pathologist when asked to pass on the question of malignancy and non malignancy. It is my belief the authors are merely being kind. It is difficult for me to see how history, unless perchance there is a pregnancy, gross appearance of the lesion, etc., can or should influence the pathologist in arriving at a diagnosis, for it is the histology of the lesion which alone will identify as non malignant a benign lesion that gives a history and gross appearance suggestive of cancer—i.e., tuberculosis, venereal granuloma, marked cervicitis.

Carcinoma in situ is well discussed. It is a difficult subject to present fully without leaving the reader somewhat confused. This is understandable since the literature on the subject, unless it is critically analyzed, is confusing. The authors have performed a difficult task of presenting briefly, but adequately, the various prevailing opinions without committing themselves to any one view. However, it would help the guidance seeking reader if the authors would state that, so far, all cases reported as representing instances of cancer in situ that later developed into cancer were never studied in such a way as to initially eliminate, with reasonable certainty, the possible presence of a coexisting but unrecognized cancer. This of course reports the view of a biased reviewer.

On page 136 it would help if the legend under figure 152 would state that the authors' diagnosis of ths section is "proliferative hyperplasia." This is stated on the next page in the text.

Chapters 7 to 10 inclusive concern the endometrium, are excellently done and worth the time needed for review. This is no accident, for one of the first books written by the senior author was a monograph on menstruation and its disorders. The authors clearly point out the difficulties involved in interpreting some of the complicated histologic appearances occasionally encountered.

Chapters 11 to 14 discuss tumors of the uterus. On page 208 a comparatively new term in gynecological pathology "hemangiopericytoma" is introduced and briefly described. It would be helpful for the general pathologist if a little more space were given to the discussion of this somewhat argumentative matter and if a higher power photomicrograph were used. Figure 262 of a uterine sarcoma is a most unusual and excellent illustration.

The brevity, conciseness and clarity which generally characterize this text are well illustrated in the discussion of stromal adenomyosis. This, in common

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with many other different conditions which are discussed in a text such as this, has been, for some, a highly argumentative subject. I agree with the authors that when the endometrial invasion of the myometrium is predominately interglandular stroma which shows malignant change, then the condition may properly be regarded as an endometrial sarcoma and the addition of another trem "stromal sarcoma" hardly serves a necessary purpose. However, sound argument is the stone that sharpens the wit. As a puzzled reviewer, I still do not know why "adenomyosis uteri," a term which obviously has its place, has become so all inclusive as to displace such highly descriptive terms as "endometriosis interna" or "myometrial endometriosis."

Discussion of the fallopian tubes begins with Chapter 15, while Chapter 18 is the first of twelve chapters given over to a thoroughly comprehensive presentation of ovarian anatomy, physiology and pathology. Here again the authors have been in the vanguard of those who have popularized our knowledge about the rarer and intriguing ovarian tumors.

Chapter 30 on ectopic pregnancy is one of the larger chapters. It is excellent and beautifully illustrated as is chapter 31 on plevic endometriosis. The next 3 chapters have to do with the physiological and pathological anatomy of the uterus and related structures in response to pregnancy. Chapters 32 and 34 have been rewritten and excellently so by Robert Nesbitt, Jr., while Chapter 33 on chorioma reflects the views of the author as an authority on the subject.

The final chapter by John Frost on exfoliative cytopathology is brief, concise and explicit. It is a logical and desirable addition to this outstanding text. A book of this calibre so excellently written and illustrated is a privilege to review and a pleasure to recommend.

Karl H. Martzloff, M.D.

ATOMIC ENERGY IN MEDICINE. By K. E. Halnan. 157 pp. Price $6.00. Philosophical Library, Inc., New York. 1957.

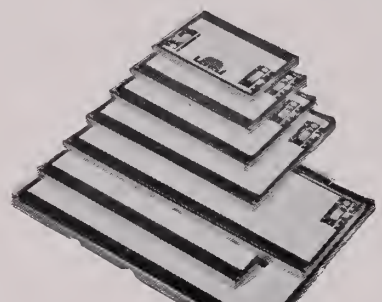
The medical uses of nuclear radiation increase almost daily, and are advocated and lauded by the professional and public press. At the same time, the same media raise a hue and cry about the hazards of these radiations. This little volume satisfactorily covers both aspects of atomic energy, and serves to put it in proper perspective. The doctor, technician, nurse, and others with only limited knowledge of physics and chemistry will find here a readable and reasonably complete introduction to the subject. The basic physics are briefly covered and the uses of isotopes in medical research, diagnosis and treatment are discussed, as well as the radiation hazard problem. The book is not designed for the more knowledgeable worker in the field.

J. Richard Raines, M.D.

THE STORY BEHIND THE WORD—Some Interesting Origins of Medical Terms. By Harry Wain, A.A., B.S.M., M.D. (cum laude), M.S.P.H., Diplomate, American Board of Preventive Medicine; Fellow, American College of Preventive Medicine; Fellow, American Public Health Association; Member, Royal Society of Health, London, England; Member, American Medical Association; Health Commissioner, Mansfield-Richland County, Ohio. 342 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

Title and fly leaf blurb would lead you to anticipate an exciting experience within the covers of this book. Unfortunately I am not able to find the linguistic adventure mentioned by the publisher. Wain does not seem able to keep my interest from waning. I felt the same way about the column he used to conduct in the *Ohio State Medical Journal* in which most of this material has appeared. To be sure, there is information on derivation and meaning of several thousand words in this not too bulky

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volume. The work is undeniably accurate. But it is neither exciting nor complete. Most medical dictionaries carry at least as much information as Wain includes in his brief biographies of great medical personalities. If you have available also a copy of Webster's New International Dictionary, Second Edition, Unabridge, you have just as much information on derivations and sometimes more on meaning. I must admit, however, that the modest price tag for Wain does considerably less damage to the pocketbook than does the Webster. Perhaps if you are looking for plain information about the words we use nearly every day and you do not require an emotional experience in getting it, Wain will win you.

Herbert L. Hartley, M.D.

SPINAL ANESTHESIA. By John B. Dillon, M.S., M.D., Professor of Surgery and Chief of Division of Anesthesia, Department of Surgery, University of California Medical Center, Los Angeles. 61 pp. Illustrated. Price $3.00. Charles C Thomas, Springfield, Ill. 1958.

The beginning anesthesiology resident and the obstetrician or surgeon administering spinals would find this monograph a useful introduction to the study of the subject. It is brief, consisting of 61 small pages, which include a selected bibliography at the end of each of 11 chapters. This booklet is clearly and simply written, and is properly conservative. Some anesthesiologists are more conservative than the author regarding intrathecal vasopressors, but there are several articles and considerable cumulative experience substantiating his viewpoint.

It is refreshing to see instructions in spinal anesthesia presented from California where litigation-minded people have partially obstructed its usefulness.

L. F. Turnbull, M.D.

CLINICAL HEART DISEASE. Ed. 5. By Samuel A. Levine, M.D., Clinical Professor of Medicine, Harvard Medical School. 673 pp. Illustrated. Price $9.50. W. B. Saunders Company, Philadelphia. 1958.

This fifth edition maintains the high standard and the easy readability of the previous four. It has been brought up-to-date with a good discussion of the place of surgery in cardiac disease and of the use of the newer anti-hypertensive drugs. The section on electrocardiography forms a monograph in itself. Vectocardiography and ballistocardiography are briefly discussed. The book is certainly among the best on the subject and offers itself as a very handy and prompt reference to both the generalist and the internist. There is enough new material in this edition to make the fourth one moderately obsolete.

Giacomo Pirzio-Biroli, M.D.

HEART DISEASE—Cause, Prevention and Recovery. By Philip S. Chen, Ph.D., Professor of Chemistry and Chairman of Division of Natural Sciences, Atlantic Union College; with assistance on Part I of Philip S. Chen, Jr., Ph.D., National Heart Institute. 189 pp. Illustrated. Price $3.00. Chemical Elements, South Lancaster, Mass. 1958.

This interesting book is divided into three parts. The first part discusses anatomy and pathology on a layman level. The second part conmmences with a discussion of athersclerosis and its relation to cholesterol and lipoproteins. A reference source is quoted with nearly every paragraph which ranges from the *Journal of Clinical Nutrition* to the *Worcester Evening Gazette.*

It is Dr. Chen's discussion of fats and oils, phospholipids and sitosterols that makes this book worthwhile reading for the physician. It is a good concise

(Continued on page 1084)

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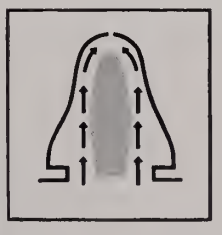
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(Continued from page 1083)

review written by a Doctor of Chemistry who presents this material in an authoratative manner. This and his discussion of soybeans, on which he is an authority, are excellent.

Other portions of the book draw conclusions and make statements which are certainly questionable and serve to detract from the aforementioned good presentations. In brief, this is a short, interesting book on heart disease of interest to the physician from the nutrition standpoint with an excellent discussion of the soybean. Another blow to the dairy industry.

Russell N. Anderson, M.D.

CIBA FOUNDATION SYMPOSIUM ON THE CHEMISTRY AND BIOLOGY OF MUCOPOLYSACCHARIDES. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Maeve O'Connor, B.A. 323 pp. 48 illustrations. Price $8.50. Little, Brown & Co., Boston. 1958.

The chemist who first ventured into the unknown to prove that common salt was the result of reaction between chlorine and sodium undoubtedly thought his research problem complicated and difficult. Perhaps it was. He had nothing to go on but what he could prove for himself. Those who followed him to discover the structure of carbon-hydrogen chains probably thought his problem trivial. With these and other milestones in the background, what must we think about those who are now digging out the secrets of the mucopolysaccharides, substances which may be a link between molecules and cells?

A wide variety of substances are included under the term. They are carbohydrate-amino acid complexes which cannot yet be described in exact terms. Primary structure of the mucopolysaccharides is not fully known and even less is known about the macromolecules they form. Reactions between these substances and protein are the subject of much speculation as well as investigation. Neutral mucopolysaccharides seem to be covalently bound to proteins whereas acid mucopolysaccharides are usually more loosely associated with proteins in the tissues. These substances occur widely in nature, not only in animal tissue but also in plants and bacteria. They enter into a variety of biologic and biochemical reactions. Their significance has just begun to be appreciated.

This report of one of the Ciba Symposia on fundamentals is highly interesting but it does not have much application, as yet, to bedside practice. It is an entertaining informal presentation of discussion by a group of explorers into one of the highly complex areas of today's unknown. Obviously, they had a thoroughly enjoyable three days and interchanged a great store of new information. If you would like to look into what very likely will be common knowledge among medical students 50 years from now, you may enjoy reading it as much as they enjoyed their meeting.

Herbert L. Hartley, M.D.

CEREBRAL LIPIDOSES: A Symposium convened in Antwerp, Belgium, July 1955. Chairman, L. van Bogaert, M.D., Director, Department of Neurology and Neuropathology, Institut Bunge, Antwerp. Edited by J. N. Cumings, M.D., F.R.C.P., Clinical Pathologist, The National Hospital; Director, Department of Biochemical Research, Institute of Neurology, London; and A. Lwenthal, M.D., Department of Neurology and Neuro-chemical Research, Institut Bunge, Antwerp. 212 pp. Illustrated. Charles C Thomas, Springfield, Ill. 1957.

This book, edited by J. N. Cumings who is Clinical Pathologist to The National Hospital in London, England, is made up of a group of papers presented at a symposium in Antwerp, Belgium, on July 26 and 27, 1955. At this meeting, papers were presented by eminent neurologists from many parts of the world who are interested in this particular subject.

The book is of interest to research workers who are concerned with this field and the field of histo-

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chemistry, and to pediatricians, hematologists, and neurologists. The book contains much material of a fine research nature regarding the lipidoses and the leucodystrophies. It deals not only with the histochemic approach to the study of these diseases but also to the biochemic aspects of their study.

The book does not contain any startling revelations as far as conclusions are concerned which might lead to immediate improvement in the treatment of any of the disorders discussed. The presentations, in general, would certainly appear to me to add much valuable factual data to the medical literature on this subject, and to point up the fact that certainly this field holds great promise for the future as one needing a lot of good work to understand further the conditions discussed. The discussions concerning the histochemic and the biochemic knowledge in regard to these diseases appear to emphasize the fact that the knowledge is in an early stage of its development.

I believe that the book is well worth-while for the specialty groups mentioned in the first paragraph, and I believe it emphasizes the good that can be derived from the dissemination of information concerning a very highly specialized group of diseases, which is brought together in symposia of this type.

W. W. Lindahl, M.D.

THE HANDICAPPED AND THEIR REHABILITATION. Edited by Harry A. Pattison, M.D. 944 pp. Illustrated. Price $14.75. Charles C Thomas, Springfield, Ill. 1957.

Rehabilitation has grown amazingly, as is illustrated by the remarkable extent of this compendium on the subject. The size of the list of contributors to this volume, and their widely varied specialties, will impress the reader of this very complete volume with the breadth of this new approach to the problems of the handicapped. The treatment of the subject is so complete as to render the book an essential in any library of medical sciences for all rehabilitation centers and every physiatrist.

The subject is treated in four major divisions dealing with: foundations, the disabilities in which rehabilitation techniques are most applicable and necessary, the rehabilitation team, and special problems and procedures. The last part covers a variety of subjects ranging from fatigue and home economics to employment procedures and agencies and laws which apply to the handicapped.

The thoughtful physician and surgeon will find much in this book to challenge his thinking about his own approach to care for the handicapped and chronically ill, and also about the entry of a large number and variety of para-medical personnel into the work of restoration of the handicapped to useful places in society. There is a challenge inherent in the detailed text which should cause all members of our profession to consider what more doctors may do toward direction of this wide-spreading medical discipline.

Arthur C. Jones, M.D.

CHILD PSYCHIATRY, ed. 3. By Leo Kanner, M.D., Professor of Child Psychiatry, The Johns Hopkins University, Baltimore. Prefaces by John C. Whitehorn, M.D., Henry Phipps Professor of Psychiatry, The Johns Hopkins University, Baltimore; Adolf Meyer, M.D., LL.D., Henry Phipps Professor Emeritus of Psychiatry, The Johns Hopkins University, Baltimore; and Edwards A. Park, M.D., Professor Emeritus of Pediatrics, The Johns Hopkins University. 777 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1957.

This third edition of the basic text in child psychiatry contains the prefaces of the first and second editions and a short preface by Dr. Kanner himself to this, the third edition.

It is difficult to add any more emphasis to the importance of this work as a basic text in the doctor's reference library to the accounts already given to the

(Continued on page 1086)



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(Continued from page 1085)

first and second editions. However, Dr. Kanner with his thoroughness has enlarged on those areas of child psychiatry where progress in research, clinical thought and experience have offered new ways of thinking and practicing in this field, not only by child psychiatrists but by the general practitioner and pediatrician as well.

The text contains, as did its predecessors, not only pure medical psychology in the consideration of behavior problems of children but chapters 22 through 26, a total of almost a hundred pages, are devoted to discussion of the organic factors. Also, it is important to point out that, as Dr. Kanner talks of the various system phenomena, he never forgets the somatic problems all child psychiatricts must face and his discussion of the importance of the organic always tends to shake up those of us who get too interwoven in the purely psychologic.

He has always been interested in the problems of speech and speech correction and he has brought this chapter up-to-date. An attempt is made to incorporate all of the latest works in delinquency and hospitalism, but in a text of this nature it is obvious that much of the quantity of literature and research results must be omitted.

As usual, those of us who search for greater understanding of dynamic etiology in the behavior problems of children cannot find what we are looking for in Dr. Kanner's texts but this is a small criticism.

Once more, one can only say that if a practicing physician who sees children, regardless of his specialty, does not have Child Psychiatry by Dr. Kanner in his library, the third edition of this text will adequately fill that void.

S. Harvard Kaufman, M.D.

INHALATION ANALGESIA IN CHILDBIRTH. By E. H. Seward, M.A., D.M. (Oxon.) F.F.A.R.C.S., D. Obst., R.C.O.G., Consultant Anaesthestist, High Wycombe Group of Hospitals; and R. Bryce-Smith, M.A., D.M. (Oxon.), F.F.A.R.C.S., First Assistant, Nuffield Department of Anaesthetics, University of Oxford; Formerly Assistant Professor of Anaesthesia, Western Reserve University, Cleveland, Ohio. 58 pp. Price $1.50. Charles C Thomas, Springfield, Ill. 1957.

This little volume is intended primarily for the instruction of English midwives in the restricted use of inhalation anesthetics without loss of consciousness. As such it will have very limited value in this country.

As it reviews the nature of pain of labor, factors in pain relief, and analgesic properties of nitrous oxide and trichlorethylene (Trilene), it will be of some interest to obstetric nurses, many of whom assume some of the duties of the midwife in certain areas of the U.S.

The monograph's chief value to anesthesiologists is the clarity of diagrams of various English apparatus of ingenious design for analgesia with nitrous oxide and or trichlorethylene and air.

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CUTTER LABORATORIES
Berkeley, California

VOLUME 57, NUMBER 9
SEPTEMBER, 1958

NORTHWEST MEDICINE

This month

PROSTATIC CANCER

NEW ORAL ANTIPRURITIC

CHLOROTHIAZIDE IN EDEMA

TREATMENT OF DEPRESSION

PHYSICIAN, PATIENT AND CARDIAC SURGERY

HOSPITAL INFECTIONS . . . PROCEDURES FOR CONTROL
CONTROL IN GENERAL HOSPITALS

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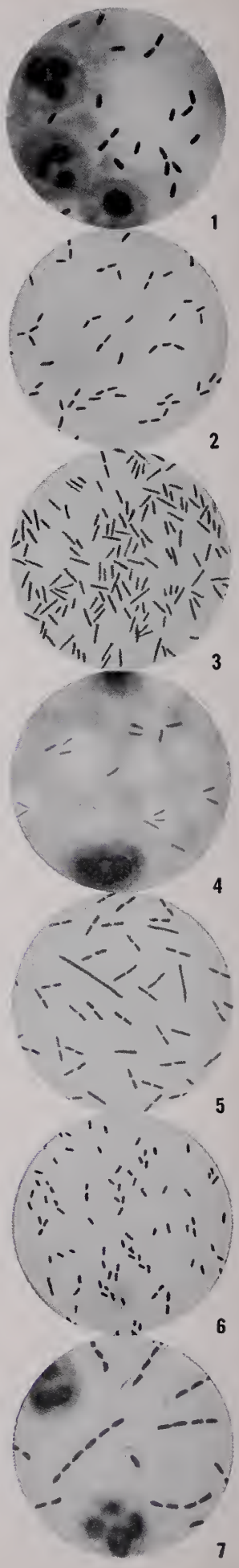
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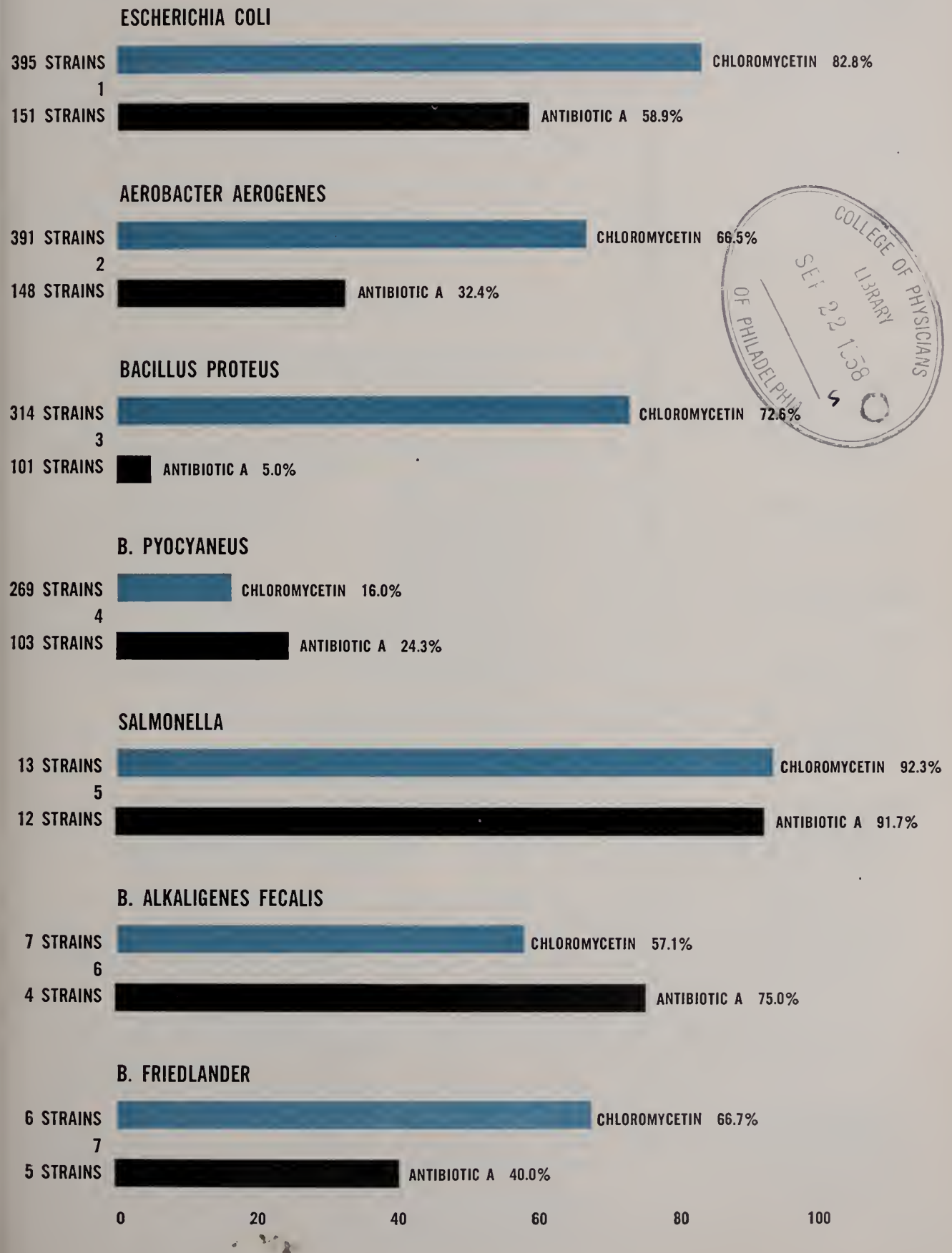
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*Adapted from Schneierson.[1]

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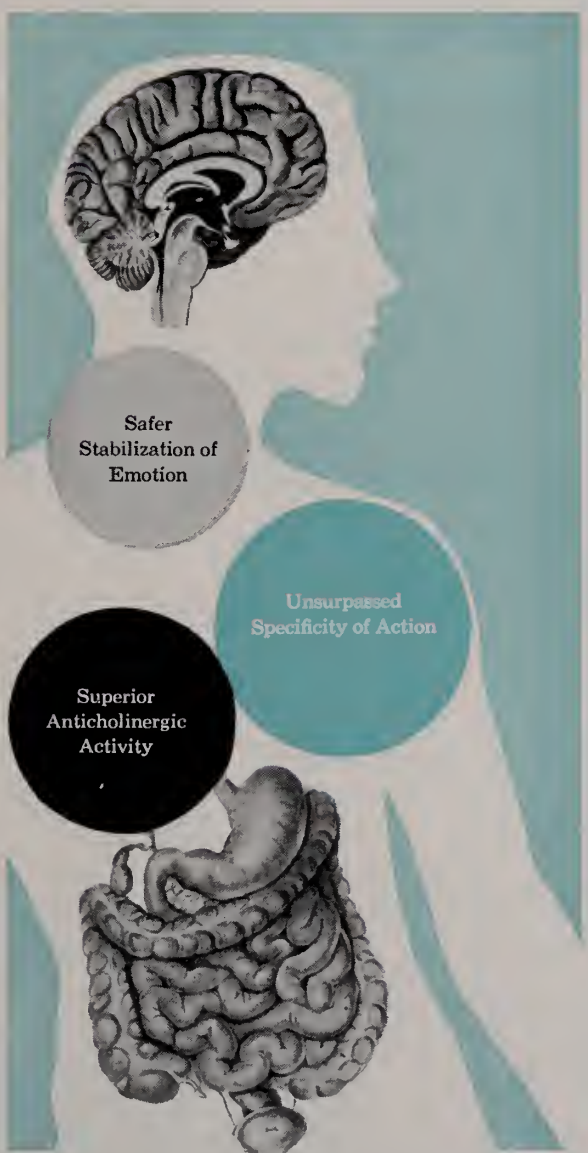
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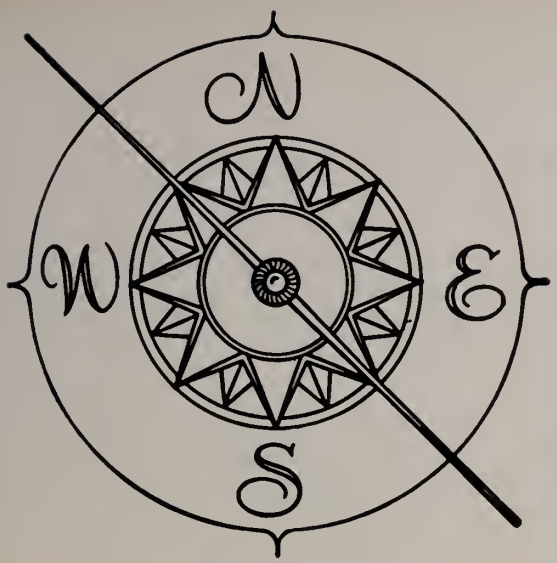
Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

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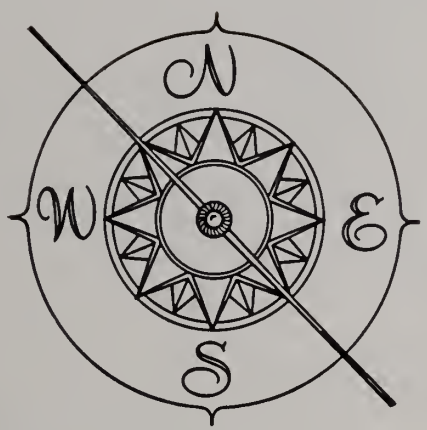
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Gosselin[3]	6,288	3 tabs.	satisfactory	Levonor fills a need
Frohman[4]	49	3-4 tabs.	2.8 pounds	did not increase blood pressure or pulse rate
Pomeranze[8]	125	3-4 tabs.	2 pounds	curbs appetite, real improvement
Berkowitz[9]	35	3-4 tabs.	1.5 pounds	excitation and other side effects not observed

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1. Gadek, R. J., et al.: J.A.M.A. 167:433, 1958. **2.** Feldman, H. S.: In press, 1958. **3.** Gosselin, R. A. (Office Practice Study: 902 physicians): to be published. **4.** Frohman, I. P.: In press, 1958. **5.** Mayer, J.: Bull. New York Acad. Med. 33:744, 1957. **6.** Dole, V. P., et al.: Am. J. Clin. Nutrition 2:381, 1954. **7.** Stunkard, A. J., et al.: J. Med. 19:78, 1955. **8.** Pomeranze, J.: Personal communication, 1958. **9.** Berkowitz, D.: Personal communication, 1958. **10.** Gadek, R. J.; Feldman, H. S.; Lucariello, R. J.: Scientific Exhibit, A. M. A. Meeting, December, 1957.

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the cough

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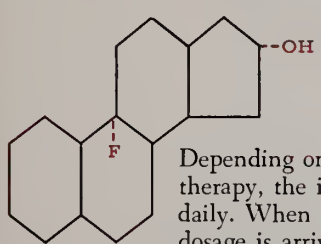
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1. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. *6*:580 (April) 1955.
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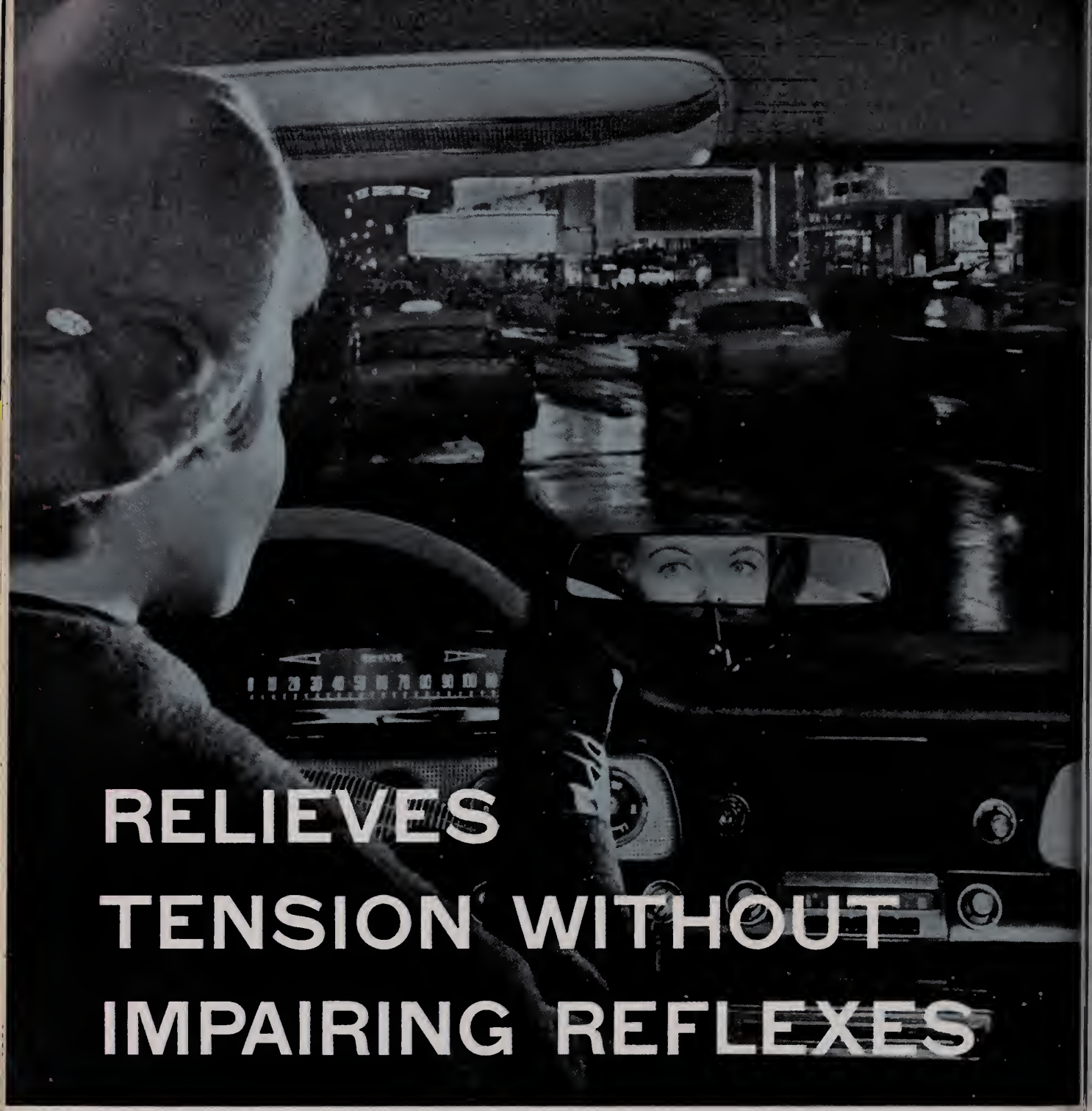


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*Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: *Ann. New York Acad. Sc.* 67: 701, May 9, 1957.

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NORTHWEST MEDICINE

VOLUME 57
NUMBER 9
SEPTEMBER, 1958

EDITORIAL

AMA Administration Reorganized

Part of the process of remodeling the AMA had to be complete reoganization of administration at 535 North Dearborn Street. Sweeping changes were made by the AMA Board of Trustees at regular meeting in August. They follow closely the recommendations of the Heller Report. Overhaul of administrative machinery does not affect the basic remodeling of AMA discussed in these columns there months ago[1] but provides much more efficient direction for the many services listed in another editorial in the same issue.[2]

Overloading of the chief executive position was pointed out in the Heller Report. The General Manager, F. J. L. Blasingame, now receives reports from only 6 division heads rather than from 24 individuals formerly reporting from that many departments. The Report, under discussion of staff organization, said:

> As has been noted, the Association increased its activities considerably in the last 15 years. This growth was accompanied by expansion of the staff organization. With its increased size and greater complexity, a close coordination of functions is necessary in order to do an effective job for the profession. ° ° ° Of the more than 650 salaried employees who make up the staff organization, approximately 550 are supervised by the Secretary and General Manager and the rest by the Editor of the *Journal of AMA*.

Some of these employees are assigned to specific councils and committees and work under the immediate direction of the council or committee secretary. Others conduct such activities as public relations, publishing, and business, and are assigned to the departments performing those functions.

Over all, there are a number of basic weaknesses in the organization and composition of the staff which reduce its effectiveness and add to the problems of administration. The following are specific areas in which improvements can be made.

The Secretary and General Manager has too many persons reporting to him. ° ° ° It is axiomatic that no administrator should have more people responsible to him than he can effectively supervise, and to whom he can devote sufficient time to provide guidance in matters of policy and administration. A number of the departments whose staff executives are now responsible to the General Manager are not of sufficient importance or size to warrant his direct supervision. Among these are the Machine Records Division, Membership Department, Bureau of Medical Economic Research, and Council on Mental Health.

In addition to having too many people reporting to him, the General Manager has many other demands on his time. Many outside organizations call on him to make speeches and attend meetings. In addition, he is an ex officio member of all councils and standing committees of the Association. All together, these are important but they take so much time that it is impossible for him properly to plan, coordinate, and administer the activities of the Association.

Other department heads also have too many persons responsible to them. ° ° ° For example, the Director of Public Relations has nine persons responsible directly to him. There are a number of related functions in this department which could be combined. This would reduce the number of persons reporting to the

1. Editorial: Remodeling the AMA, Northwest Med. 57:715-716, (June) 1958.
2. Editorial: Components, Northwest Med. 57:717, (June) 1958.

Director and free him from time-consuming detail, thus permitting him to devote more attention to policy and administrative matters. Similar steps could be taken in other departments . . .

In accordance with these suggestions, The Board of Trustees has created six new divisions and named the head of each. Business will be directed by Mr. Russell H. Clark. Law will continue to be under management of Mr. C. Joseph Stetler. Communications, which includes professional and public relations, will be administered by Mr. Leo Brown. Mr. Aubrey Gates will head the Division of Field Service and Austin Smith will be in charge of the Division of Scientific Publications. This division will be responsible for editorial activities including the editorial departments of *AMA News* and *Today's Health.* Control of advertising and circulation of the two publications will be transferred to the Business Division. Sixth division is that of Council Administration headed by Ernest B. Howard who is also assistant executive vice-president. This division is considered to be a temporary device and may be discontinued or reassigned after further studies on scientific and socio-economic activities of AMA.

Changes were made only to increase the efficiency with which the work load at the Chicago headquarters may be handled. None required revision of constitution or bylaws. •

What Do You Know About Hospitals?

Physicians do not know very much about hospitals if a study reported in *Hospitals*[1] reflects the situation accurately. There is little reason to suspect that it does not. The study was conducted in two hospitals, one a 300 bed hospital in a city of 200,000, the other in a 600 bed hospital in a city of more than a million population. Both were general institutions accepting acute cases.

Questionnaire was composed of 47 questions with multiple choice answers. They were in four groups covering medical staff organization, general administration, personnel administration and financial management. All scores were low, with 90.1 per cent returning less than 60 per cent correct answers. Ignorance of personnel and financial problems of the hospitals was the most striking finding. In these fields the number of correct answers could have been explained by chance alone.

It is interesting to note that physicians in the smaller community were considerably better informed than those practicing in the large city. The report carries no explanation of this difference and does not make any attempt to fix responsibility for meagerness of physicians' knowledge. It does assume, however, that more knowledge of hospital problems might reduce the tensions which sometimes arise between physicians and hospital administrators. Also discussed is the question of how much the physician ought to know about hospital administration. Apparently physicians realize that they should know more since the final question in the survey asked for an opinion on value of more knowledge. More than three-fourths of staff members in the two hospitals indicated that it would be valuable.

Physicians knew very little about admission policy. When asked what types of patients would not knowingly be admitted only 16.9 per cent of staff members in the large hospital and 35.4 per cent in the smaller hospital knew the correct answer. They knew even less about how their patients met hospital bills. On the question of percentage of patients paying all bills out of pocket the answers were 12.5 per cent

1. Gottlieb, S. R., How much do doctors know about hospitals?, Hospitals, 32:33-35, (Aug.) 1958.

correct in the smaller hospital and 24.6 per cent in the larger. Autopsy rate was known by 59 per cent and 21.2 per cent. Even staff appointment responsibility was not well understood. In the smaller hospital 45.1 per cent knew who had the power to appoint and remove staff members but in the larger hospital only 11.9 per cent were informed.

Year of graduation from medical school and number of years of association with the hospital seemed to make no difference in the accuracy of answers but specialization did. General practitioners made the poorest scores. Six specialty groups were about equal in their knowledge of all of the hospital problems. An interesting and probably significant difference showed up when it was discovered that those who used the hospitals most, knew most about them. Highest scores were made by those who made more than 25 hospital calls a month and lowest by those who made 5 or less.

Although the report does not answer the question it raises about desirability of more knowledge on the part of physicians, it would appear that an educational program is very much needed. It is doubtful if hospital administrators have deliberately withheld information from staff members. More studies may be needed to determine whether failure of physicians to know the facts about hospitals stems from administrative neglect to inform, or physician indifference.

It is surprising that the group most vocal about hospital domination of the practice of medicine has the least knowledge of hospital administration. General practitioners should be chagrined to find that members of their group have so neglected to inform themselves on a subject of considerable importance. Since they are not alone, however, in their ignorance of hospital affairs, their chagrin should be shared by all. If physicians individually will not take the trouble to familiarize themselves with hospital operation, the county societies may need to set up intensive educational programs. •

Deficiency In Education

Medical education has been the subject of a great deal of discussion, in recent years, by those within and by those without medical school organizations. It is doubtful, however, if anyone has pointed out more eloquently than the writer of the letter below, one of the significant deficiencies of medical education today. A very important segment of the American public will not get adequate medical care until rural communities are supplied with physicians whose training does not belittle the role of the rural doctor. Rural people can have first class care and do not deserve the fate suggested.

Author of the letter has been in practice in a small Washington community for ten years. He has been engaged in futile search for a younger physician to take over his practice when he leaves for training in a special field.

Northwest Medicine
500 Wall Street
Seattle, Washington

Gentlemen:

Please discontinue my advertisement in your publication. I received only one reply and this person was interested in a larger community.

The handwriting seems clear; today's young physician wants nothing to do with either solo practice or being in a town without hospital facilities. This is verified by the eight replies received from the AMA ad. A ready made excellent income practice is no inducement.

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Very sincerely yours,



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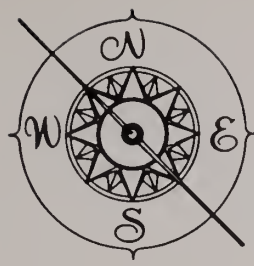
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ORIGINAL ARTICLES

Conservative Treatment of Carcinoma of the Prostate Gland

C. D. Creevy, M.D.
MINNEAPOLIS, MINNESOTA

Current methods of treating prostatic malignancies are based on knowledge of response to hormones. Extensive clinical and experimental studies indicate sensitivity of the prostate to a number of hormones. Estrogens benefit the victim of cancer of the prostate but best results are obtained when administration of estrogen is combined with castration. Other hormones should be tried when relapse occurs.

The prostate is a compound tubular gland derived from five evaginations of the proximal urethra starting in the twelfth embryonic week; development is fairly complete a month later. These evaginations correspond in location to the five lobes of the adult gland, which are regions rather than distinct structures (Fig. 1). The gland remains virtually static until puberty, during which it grows rapidly, then slows down gradually until the age of 30, at which time it measures about 2.5 x 3.5 x 4 cm., and weighs 15 to 20 Gm.

It forms a milky, faintly acid secretion, loaded with doubly refractile lecithin bodies, at the rate of 0.5 to 2 cc. per day, and more during parasympathetic or sexual stimulation (Huggins). The fluid contains electrolytes, fructose, citrates, proteoses, cholesterol, choline, acid phosphatase, and fibrinolysin. This last may apparently cause a serious hemorrhagic diathesis in an occasional patient with disseminated carcinoma. The only known functions of the secretion are to nourish the sperm and to liquefy the ejaculate.

Our knowledge of the sensitivity of the prostate gland to internal secretions probably had its beginnings with John Hunter's description, in the 1870's, of prostatic atrophy following castration. Burrows, and Owen and Cutler noted a transitory enlargement in the newborn, and attributed it to maternal sex hormones. Crowe, Cushing, and Homans observed atrophy of prostate and testes after hypophysectomy. It was later shown that this atrophy could be prevented by administration of anterior pituitary extracts, and that the prostatic but not the testicular changes could be prevented or corrected by androgens.

So much is definite, but much of the rest of our information is confused or speculative, probably because of species differences or of discrepancies in the criteria of various observers.

Read before the 66th Annual Meeting of the Idaho State Medical Association, Sun Valley, Idaho, July 7, 1958.

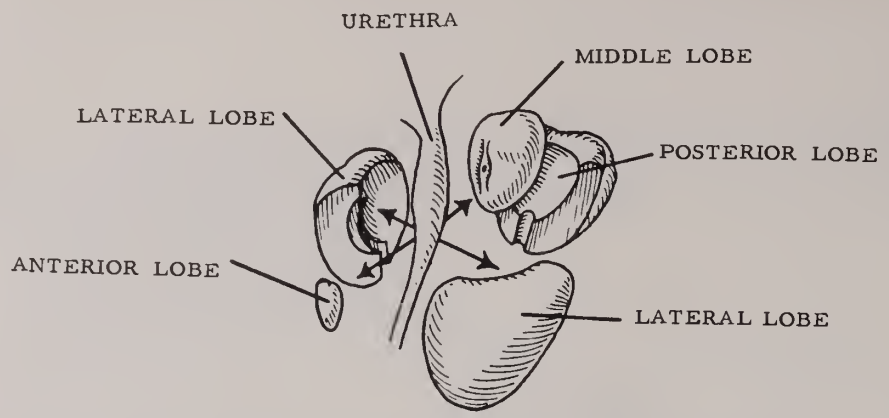


Fig. 1. An exploded view of the prostatic lobes, revealing how they are named according to their relation to the urethra. The normal and the abnormal lobes, while not the same, are named by the same system. (Figure reproduced from V. F. Marshall, Textbook of Urology, 1956, p. 67, by permission of the Hoeber-Harper Co., New York.)

This information may be summarized briefly as follows: prolonged administration of estrogens causes prostatic enlargement in mice (Lacassagne), dogs, and monkeys (Huggins), due mainly to squamous metaplasia. The same agents induce enlargement of prostatic fragments in the anterior chamber of the eye of the castrated rabbit (Krichevsky and Benjamin), but cause shrinkage of the mature rat's prostate (Huggins).

Androgens

Androgens have been alleged to *cause* benign hypertrophy of the prostate in the human (McCullagh), and also to *correct* it (deJongh). They affect prostatic fragments in the anterior chamber of the castrated rabbit's eye just as estrogens do.

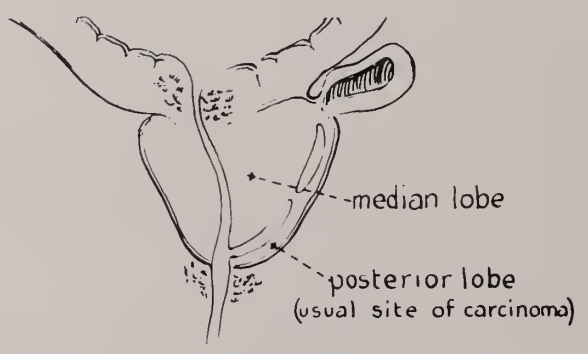
Scott has emphasized the paucity of our knowledge of the effects of androgens and estrogens upon the normal adult human prostate.

There is no evidence that adrenal cortical hormones affect the prostate. Richter has shown that the adrenal hyperplasia resulting from castration is accompanied by prostatic atrophy; Sayers suggests that the amount of cortical hormone produced by very hyperplastic adrenals is too small to affect the prostate. Cortisone does not affect the dog's prostatic epithelium (Talalay) nor that of the rat (Scott).

Pituitary and pituitary-like substances cause hypertrophy of the smooth muscle of the monkey's prostate and vesicles (Geschickter, Lewis, and Hartman). This is probably a direct effect, since it occurs in the castrate, and since adrenal cortical hormones do not produce it. Martins and Rocha joined normal with castrated rats in parabiosis, and attributed the ensuing prostatic enlargement in the intact animal to overstimulation by the pituitary of the castrate.

Ferguson reported prostatic hypertrophy in young men dying of teratoma testis with a high titer of gonadotropins, and Powell recorded it clinically after injection of APL for undescended testis. However, Tillisch and Thompson saw spontaneous prostatic hypertrophy in a man in his twenties, so that the significance of the two preceding observations is uncertain.

Nearly all prostatic neoplasms are adenocarcinomas arising in the posterior lobe which lies below and behind the ejaculatory ducts (Fig. 2).



Carcinoma of the Prostate

Fig. 2.

Most grow slowly and metastasize late via lymphatics and blood stream. First metastases pathologically are in the regional nodes; clinically

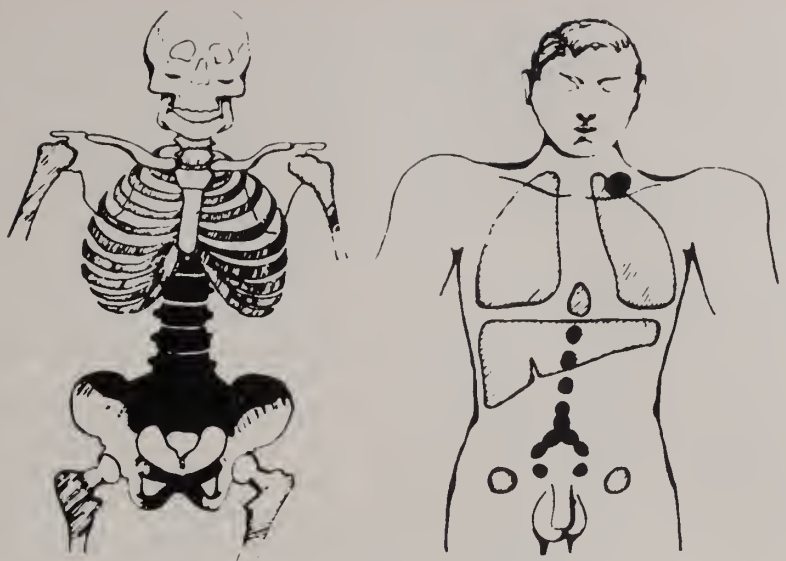


Fig. 3. Sites of metastasis of carcinoma of the prostate.

they appear first in the lumbar spine and pelvis (Fig. 3). Invasion of adjacent structures and metastases both occur late in the course of the disease, but early from the point of view of symptoms of obstruction.

The etiology of prostatic cancer is unknown, although androgens seem implicated. Scott knows of no case following prolonged administration of androgens, but suspects an androgen-estrogen imbalance. Lesser *et al.* studied 100 men past 45 previously treated with androgens, and found no more prostatic disease than in 100 controls.

Carcinoma is found in 15 to 20 per cent of prostatic obstructions, and with steadily increasing frequency as age advances. Hirst and Bergman observed at autopsy that it affected 42 per cent of men from 80 to 84, 71 per cent from 85 to 89, and 80 per cent from 90 to 99. According to Jewett, it causes 15,000 to 20,000 deaths yearly in this country; Hinman surmises that we have three to eight million cases living at one time. The rapid rise in incidence of the last half century appears to represent aging of the population rather than increased individual susceptibility.

Castration

Two facts probably led Huggins to castrate patients with prostatic cancer: the regression of advanced breast cancers after gonadectomy, and the relationship between carcinoma of the prostate and acid phosphatase, an enzyme which hydrolyzes the esters of phosphoric acid. Its function is unknown, and the differences between the acid and alkaline varieties are not clear. In 1935 Kutscher and Wolbergs showed that the adult prostate contained more acid phosphatase than any other tissue. Shortly the Gutmans and Sproul found similar concentrations in prostatic cancer and its metastases. In 1938 the latter observed that while there was but little of the enzyme in the immature gland, it increased with the administration of testosterone. Soon they, Barringer and Woodard, and Huggins discovered elevated acid phosphatase in the serum in some patients with metastasizing carcinoma of the prostate.

Beginning in 1939 Huggins castrated 21 patients with advanced prostatic cancer. There was improvement in 85 per cent (relief of pain, increased appetite and weight, softening and shrinkage of the local lesion and, in some, regression of metastases). The serum acid phosphatase fell toward or to normal during regression. Relapse followed administration of androgen, but this effect could be prevented by the simultaneous administration of estrogen. Very shortly Herbst reported regression from estrogens and Munger from testicular irradiation.

Many have since verified Huggins' original observations, but it was soon found that 20 to 30 per cent of prostatic cancers resisted these measures, while virtually all acquired resistance after periods ranging from one half to ten years.

Huggins and Scott observed that the urinary 17-ketosteroids (mainly androgenic) rose tempo-

rarily after castration, and concluded that relapse resulted from increased production of androgens by adrenals stimulated by the hyperactive castrate pituitary. They therefore subjected four patients to total adrenalectomy in 1945, but were unable to keep them alive long enough to judge the effects upon the disseminated cancers.

Castration Plus Estrogens

In 1950 Nesbit and Baum studied a considerable number of patients treated by androgen control. They found that 31 per cent of those without evident metastases survived castration for 5 years, whereas 29 per cent of a similar group taking estrogens survived for the same period. This figure rose to 44 per cent of those treated by combining the two methods. Survivals fell to 21, 10, and 20 per cent in those with metastases at the beginning of treatment. Corresponding figures in controls treated by other methods were 10 and 6 per cent. The difference in survival between those with and those without metastases doubtless means that the former had more advanced disease when treatment was instituted.

Staubitz *et al.* have confirmed Nesbit's and Baum's conclusion that castration plus estrogen is better than either one alone.

It is evident therefore that Huggins has made an important and gratifying contribution to the comfort and longevity of patients with prostatic carcinoma.

However, the problem of primarily androgen independent cancer and of relapse in initially sensitive ones is unsolved. It is well established that castration and estrogen administration are about equally effective. However, a patient who relapses after initially successful treatment with one method has some chance of remission if the other treatment is then given; relapse after therapy with estrogens may sometimes be corrected by increasing the dose to very high levels.

Huggins revived total adrenalectomy when the advent of cortisone made survival possible, and this was tried in other clinics. However, response was so variable and transitory that few now regard it as a practical treatment for relapsing prostatic cancer. Since adrenalectomy reduces urinary androgens to the vanishing point, it seems that tumors relapse because they escape from the control of hormones, or become androgen independent. The fact that some prostatic cancers have this feature from the beginning has already been mentioned.

While adrenal hyperplasia follows castration, this can apparently be eliminated by estrogens. I have done five total adrenalectomies in castrates who were receiving estrogens; all the adrenals were normal. Moreover, some estrogens, notably Tace, are said not to cause adrenal hyperplasia, yet relapse follows initial success here, too.

Scott has reported six patients hypophysectomized for prostatic carcinoma, five relapsing and one untreated. One was alive nine months unimproved, and one was improving after two months.

Murphy and Schwippert irradiated the pituitary in 30 patients with an average post treatment survival time of 15.6 months as compared to 9.6 months in a larger group treated for relapse by other methods (Nesbit and Baum). Both methods are intended to reduce adrenal activity and probably cannot be expected to affect androgen independent tumors.

Other Hormones

Other hormones have been used both as primary treatment and for relapse. Trunnell has employed progesterone but, while 7 of 10 patients improved somewhat, effects were uncertain and injections were painful.

Testosterone (Brendler *et al.*, and Flocks) may have paradoxic effects in some tumors which have escaped from the control of estrogens, leading to improvement rather than to the aggravation first noted by Huggins. This has been "explained" by reference to changes in the hormonal milieu.

Valk and Owen, Leadbetter, Hayward, and others have sought to produce "medical adrenalectomy" with cortisone, but it remains to be proved conclusively that reported benefits are due to anything but euphoria. More study needs to be done.

Stilbestrol

It seems clear that the best results so far have followed castration plus estrogens. Stilbestrol is the cheapest of these; opinions as to optimum dosages vary, probably because response to a given quantity differs from patient to patient. An average is probably 5 mg. Using the excretion of androgenic 17-ketosteroids as a guide, Birke *et al.* recommended 10 mg. daily for a week or two as a loading dose, and 5 for subsequent maintenance. Experimentation with the individual patient sometimes permits doses as low as 0.5 to 1.0 mg. daily. On the other hand, estrogenic treatment should not be abandoned

because of relapse until large doses (25 to 500 mg. daily—Hudson) have been tried. Selection of the right amount is rendered difficult by what Scott calls differences in the biologic potential of various individual tumors. One patient seen by him survived 25 years after prostatectomy with a histologic diagnosis of cancer, only to return with recurrent obstruction, also due to prostatic neoplasm, having received no hormones in the interim.

Nausea from stilbestrol may be troublesomc. It is uncommon if given in a single dose at bedtime, resultant nausea passing unremarked during sleep. Central origin of the nausea renders enteric coating valueless. Measures to be tried include dramamine, and trial of other estrogens such as alpha estradiol, Estinyl, Tace, or Vallestril.

Kearns has implanted sterile 50 to 100 mg. pellets of alpha estradiol subcutaneously at fairly long intervals in forgetful patients or those intolerant of oral estrogens.

Effects of Estrogenic Therapy

Soreness and enlargement of nipples and breasts are probably indices of estrogenic potency, and claims that a given preparation does not produce them doubtless means only that the recommended dose is weakly estrogenic.

Edema from salt retention may result from estrogenic therapy, particularly when renal or cardiac function is impaired. Low salt and water intake, reduced or intermittent administration, diuretics and, in suitable cases, digitalis should be tried before estrogens are omitted. Edema from lymphatic permeation should not be forgotten.

It has been assumed that estrogens reduce activity of the anterior hypophysis which, in turn, ceases to stimulate testicular activity, thus constituting pharmacologic castration. Other observers feel that there is some direct effect upon the cancer cells. For this reason the soluble diethyl stilbestrol diphosphate has been recommended, with the additional assumption that a high acid phosphatase concentration in the tumor and its metastases will lead to its deposition in them through dephosphorylation, with intensified local effects. Brandes and Bourne have shown that this occurs upon incubation with various tissues from the rat.

Flocks *et al.* have given 250 to 1250 mg. of diethyl stilbestrol diphosphate intravenously each day for 5 to 20 days to 66 patients, and have sometimes repeated the courses monthly. They observed benefits in an appreciable proportion of patients resistant to other estrogens. This agent (Stilphostrol) is currently being tried orally.

The mechanism of any direct effect of estrogens upon prostatic cancer is uncertain. Nicol *et al.* have suggested that they stimulate the reticuloendothelial system to deposit macrophages in the accessory sex organs, and that their conversion to fibrous tissue interferes with growth of the tumor.

If these measures fail or lose their effects, adrenal cortical hormones should be tried. Since prednisone causes less retention of salt than does cortisone, it is probably better. One may start with 50 mg. daily and, if benefits appear, gradually reduce the dose to a maintenance level, which has to be found for each individual.

Older measures must be remembered in relapse. External irradiation (x-ray, cobalt) may relieve the pain of metastases or cause some shrinkage of the primary lesion; the latter may also follow the implantation of radioactive colloidal gold or of radon.

Very occasionally cordotomy may relieve intolerable pain in a refractory patient still in good general condition. Thorazine is occasionally helpful.

Summary and Conclusions

1. The prostate gland is sensitive to a number of hormones.

2. Only estrogens are of demonstrable clinical value in this regard, and then only in 60 to 70 per cent of prostatic cancers.

3. Most carcinomas of the prostate will regress temporarily (6 months to 10 years) after castration, but when relapse occurs, it is difficult to induce another regression.

4. This may sometimes be accomplished by the use of such diverse methods as increased doses of estrogen, the use of testosterone, progesterone, derivatives of cortisone, or by irradiation of the pituitary. The effects of these measures upon primarily or secondarily androgen independent tumors are variable and often transitory; much remains to be learned.•

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Procedures for the Control of Hospital Infections

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New respect for old rules has been imposed by the staphylococcus. Antibiotics do not merit the faith they have been accorded. The problem is not local but is of increasing importance in all parts of the country. Voluminous literature attests to widespread interest. Most discussions emphasize the necessity of returning to rigid application of long established principles of asepsis.

During the past three or four years many excellent articles have appeared in medical and hospital journals presenting numerous facets of the epidemiology and control of infections occurring in hospitalized patients. The present article is an attempt to present in a brief manner a "distillation" of the findings and recommendations contained in the voluminous recent literature to serve as a guide that may be used in hospitals interested in preventing or controlling such infections. The published sources of information will be found in the bibliography appended.

Epidemiology

Before considering control methods, it will be helpful to review some of the epidemiologic factors involved in the development of the situation we are faced with today. It is safe to say that there have been cross infections in hospitals ever since they have operated as such. Before the time of Lister, surgery without subsequent suppuration was a rarity and the death rate was extremely high. As hospital care improved and Lister's principles of antiseptic surgery were adopted, and later, as these were further refined on the basis of the then young science of bacteriology to become what we now call "aseptic technique," the mortality due to surgical operations was reduced considerably.

Yet, between 1900 and 1934, the infection rate for clean wounds in hospitals where such infections were studied, ranged from 5 to 15 per cent. Physicians who were in training or practice during the twenties and early thirties should have no difficulty in remembering the many cases of osteomyelitis, empyema, peritonitis, and septicemia seen during that time.

Then came the sulfonamides, followed by the antibiotics and numerous synthetic germicides, and for a period of about 20 years, only occasionally did hospital infections appear to be a serious problem.

That this situation has changed within recent years is amply attested to by the voluminous literature the problem has produced. Analysis of the present situation indicates that the problem is going to demand serious continuous attention for some time to come.

The current "staphylococcal problem" emerged about the time it was observed that an increasing number of strains of staphylococci were resisting the action of penicillin. There appears to be a significant relationship between these phenomena.

It seems plausible that during the 20 year period in which antibiotics appeared to be so effective, the process of transmission of infection must have been going on continuously, though masked by the ability of the antibiotic to prevent the development of disease. Now that many

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organisms no longer respond to these therapeutic agents, disease (pyogenic infection) has again become not only more apparent, but a serious threat to our system of hospitalization.

Agents involved in transmission of hospital infections may be listed briefly as the patients, the personnel and the environment. These are the sources as well as the recipients of the infecting organism. The pathways and means of moving organisms from reservoir to susceptible host are numerous and complicated. In any individual instance there is no way of determining in what manner the organism will be spread—by direct contact, through air-borne transmission, or by indirect contact with fomites. The control of transmission of these infections must be found in the exercise of control over the numerous avenues between patient, personnel and environment.

It has been repeatedly demonstrated that patients with draining pyogenic lesions serve as foci for the dissemination of infection. Organisms from skin or wound infections somehow spread to other exposed areas of skin. Not only does the bed linen become contaminated, but also the hands of the patient, which in turn contaminate many other articles in the room, including the patient's blankets and bedding. Eventually the nasal passages usually become contaminated also. Movement of the patient in bed, or talking, sneezing or coughing of the patient who is a nasal carrier puts organisms into the air. Many of these settle to the floor to be raised and re-distributed by movement of persons and air currents in the room, some of them finally lodging on objects or sites to expose another person. Some patients excrete large numbers of staphylococci in the stool and subsequently contaminate toilet seats, bathroom fixtures, and their own hands.

Wysham *et al.* demonstrated how nursery infants whose skin was colonized by staphylococci served as a reservoir of infection which found its way to non-colonized infants in the same nursery; further, they showed that infants carrying the specific organism in their oropharangeal mucosa were capable of transmitting the infection to the mother's breast while nursing.

All strains of coagulase positive *Staphylococcus aureus* are not equally pathogenic. While 50 per cent or more of the personnel of a hospital may be nasal carriers of staphylococci, only a relatively small proportion of these (4 to 10 per cent) as a rule carry the more virulent strains. All carriers of virulent strains are not continuous active spreaders of the infection. For reasons not well understood, certain nasal carriers are more active and effective disseminators than others. Unfortunately there is no practical method to pre-determine the identification of the person who will become such a hazardous disseminator. Persons with pustular lesions (either patients or personnel) appear to be more dangerous sources of infection than most nasal carriers, providing the nasal carrier does not have an active respiratory tract illness, such as a cold or hay-fever.

The accompanying diagram illustrates some, but by no means all, of these reservoirs and pathways of transmission. It should be pointed out that studies of many outbreaks have shown clearly that the mechanism operative in one outbreak may not be operative in another. All of these transmission possibilities are potentially hazardous and therefore all need to be guarded against.

Evaluation of the Problem in a Particular Hospital

It is necessary to obtain reliable information in order to assess the extent of hospital infections. Impressions are inadequate and frequently erroneous. Since all the services of the hospital will be involved in the effort to obtain the information needed, it is practically necessary to carry out the work under the auspices and with the support of a hospital infection committee (by whatever name it may be called).

Laboratory Service

Considerable laboratory service will be needed to carry out any study of the infections; therefore the committee will need to determine whether the bacteriologic service available is competent to properly identify the organisms isolated. Additional training or other assistance may be needed and can be obtained through the state department of health, or other laboratories.

Minimal bacteriologic service would include (a) isolation of colonies on blood agar plates or differential media such as Chapman-Stone medium, mannitol salt agar or tellurite glycine agar, (b) testing of pigmented colonies for coagulase activity, and (c) antibiotic sensitivity testing.

For more definitive epidemiologic studies, the additional procedure of bacteriophage typing has proved to be very useful. However, it is recommended that this procedure be employed only when an organized epidemiologic investigation is being carried out. Arrangements for bacterio-

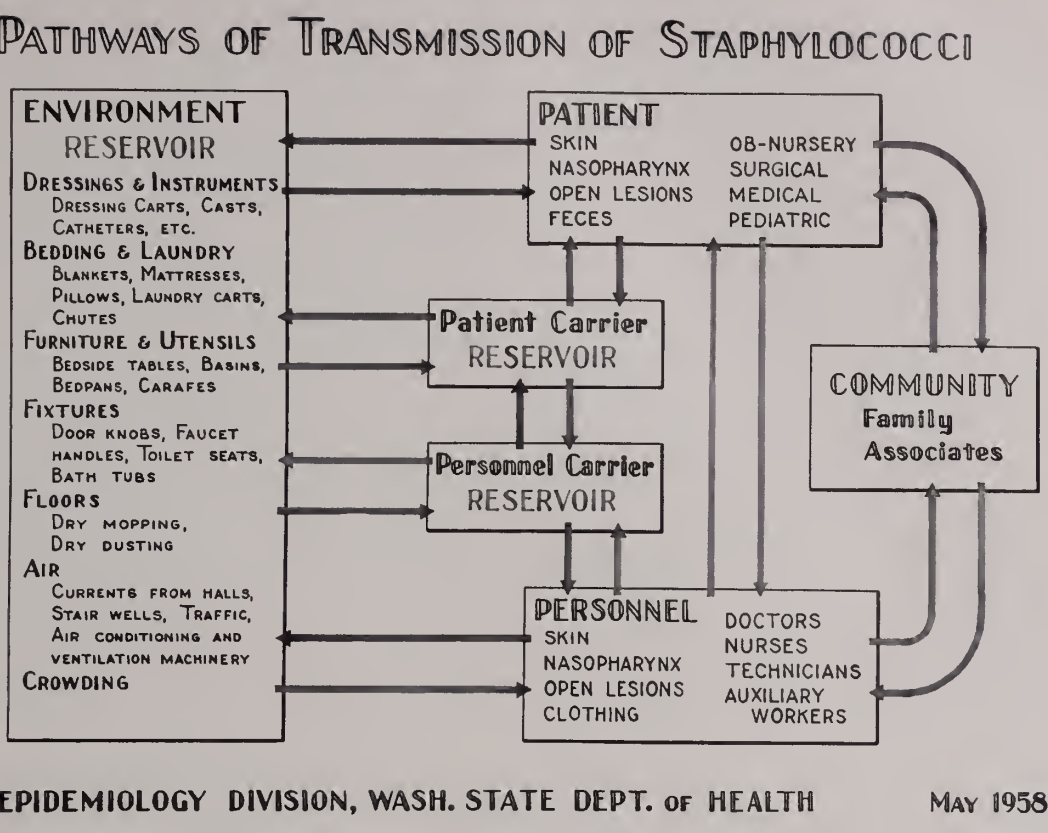


Diagram showing some of the reservoirs and pathways of transmission of staphylococci.

phage typing service may be made through the state department of health laboratory.

Locating and Reporting Infections

An effective procedure for locating infections among patients and personnel must be developed.

All infected lesions must be cultured routinely and a system for reporting of infected lesions must be developed. To accomplish this it is necessary to assign responsibility to a specific person to routinely check laboratory reports and coordinate them with reports of infection recorded on the patient's chart or made to the nursing office.

It must be kept in mind that staphylococcal infections frequently do not become manifest until after the patient has been discharged from the hospital. This is particularly true of newborn infants and parturient mothers. Therefore, in attempting to assess the problem of infection in a hospital, it is important to obtain information about patients after discharge. This has been done quite successfully by phone or questionnaire surveys. Physicians can help by reporting such infections developing at home. Frequently such infections extend to other members of the family.

Obtaining reports of surgical infections will present some difficulty. There will be differences of opinion as to what constitutes an infection. Checking patients' records against actual ward or floor surveys in a number of hospitals has established the fact that many wound infections considered to be minor are not recorded, and frequently such infections are not cultured.

The question of significance of minor infections is raised. If the results of culture show that the infection is due to a coagulase positive S. *aureus,* resistant to most antibiotics, the infection must be considered potentially hazardous. It may have caused only a minor infection in one patient, but it cannot be assumed that, when transferred to another patient, it will not cause a serious infection. This emphasizes the importance of culturing *all* pyogenic infections, no matter in what class of patient (medical, surgical, obstetric) they occur.

In one hospital the task of locating infections is assigned to a particular nurse (who is in charge of special dressing equipment). Each day this nurse asks each charge nurse whether

she has any patients with infections. Since the charge nurse has to order dressing supplies, she is quite aware of which patients have infections. By combining the information about infections obtained from the laboratory, the nursing office and other personnel designated to search for infections, it is possible to find most of the infected patients and personnel.

Considerable time is required to determine the actual incidence of infections among patients and personnel; so while this information is being collected the committee may direct its attention to other areas of hospital practice which need study. There should be a thorough review of practices in actual operation (not merely as recorded in a procedure book) in regard to: (a) *aseptic technique* as carried on in the medical, surgical, obstetric and pediatric services, which should include all nursing and isolation procedures used in the care of infected patients.* It should also include a thorough review of procedures such as handwashing, use of skin disinfectants, masks, dressing cart technique, and operating room procedures. (b) *Housekeeping methods,* including procedures and schedules for mopping and care of floors, dusting, handling of linen and bedding, and laundry service. (c) *Environmental factors,* such as ventilation (particularly in the surgical, obstetric and nursery units), traffic patterns potentially related to transmission of infection, and routine procedures for control-checking of supplies and equipment (particularly such as is distributed from central service and used in all parts of the hospitals).

Control Methods

While patients, personnel and hospital environment are inextricably interrelated in the epidemiology and control of infections developing in hospitalized patients, to present an orderly approach to control methods it is necessary to deal with each of these three categories individually and separately as much as possible. I shall begin with the patient.

The Patient

To the extent possible, patients should be screened upon admission to insure that the presence of infected lesions is noted promptly and the patient cared for in a manner which will not put other non-infected patients in jeopardy.

Patients with draining lesions should be cared for under isolation precautions, and if possible, infected patients should be segregated in such a way as to limit intermingling of infected and non-infected cases in the same part of the hospital. Grouping or centralizing of patients with infections for care on a particular service has additional advantages in that the personnel working regularly in this part of the service will be more accustomed to carrying out the precautions necessary, facilities for isolation care can be made more convenient for use, and supervision of aseptic technique may be made more effective, not only for those assigned to duty in this area, but also for those who must have contact with these patients only occasionally.

Bringing a patient to surgery who already has infected lesions is another avenue through which operating rooms become contaminated. For these reasons, elective surgery should be postponed until even minor infections are cleared up. When surgical or obstetrical procedures cannot be postponed, an operating or delivery room used for "dirty" cases should be employed, following which the room should be scrupulously cleaned and disinfected before re-use.

Patients should not be covered with the blankets from the bed in their room when brought to surgery or delivery room. Only autoclaved or specially sanitized blankets should be used for this purpose.

Patients should not be kept in hospitals any longer than necessary; the shorter the stay the less is the risk of exposure. Shorter stays should also contribute to the prevention of over-crowding.

*Standard references are available which adequately describe isolation technique. The following are particularly recommended: Section 11 of the Supplement to Hospital Standards, Rules and Regulations of the Washington State Board of Health and the hooklet "Guide for the Prevention and Control of Infections in Hospitals" prepared by the New York State Department of Health and the American Public Health Association and puhlished by Health Education Service, P. O. Box 7283, Albany 1, New York.

In the newborn nursery, the practice of admitting new babies to the same unit in which there are infants 3 or more days old should be discontinued, since this procedure contributes to maintaining infection in the nursery. Ideally, nursery units should be quite small and there should be a number of them so that infants born on the same day need not become exposed to other infants who have been in the nursery long enough to have become infected. Certainly, newborn infants should not be admitted to nurseries in which infection is known to be present. The rooming-in procedure has proved very efficacious in terminating or greatly reducing the incidence of nursery infections at least temporarily.

Since it has been shown that infected nursing infants frequently transmit infection to the mother's breast, in nurseries where infection is known to be present it is advisable to place the infants on formula feeding exclusively.

Daily application of germicidal lotions of the hexachlorophene type has been reported to contribute to the control of infection in nurseries, but procedures such as this and the prophylactic administration of antibiotics to infants must be considered temporary measures which do not solve the infection-transmission problems. Too often pyogenic lesions develop after such treatments have been discontinued and the infant is at home.

Personnel and the Carrier Problem

In hospitals having an excessive number of staphylococcal infections, monthly (or more often) nose culture surveys should be made of all personnel working in surgery, obstetrics, nursery and any other area of the hospital involved. If coagulase positive staphylococci are recovered, cultures should be repeated to determine whether infection is permanent or transient. Preferably, known carriers of coagulase positive, antibiotic resistant staphylococci should not be allowed to work in the hospital; however, if it is not feasible to manage without their assistance, they should be impressed with the potential hazard of transmitting their infection and urged to be especially careful in their technique. Such carriers should wear masks and should not work in the areas listed above.

The carrier problem is difficult to manage. Certainly the person with active lesions (furuncles, paronychia, pustular dermatitis) should not be allowed to work in surgery, obstetrics, the nursery, central service, and food service. Known nasal carriers certainly should not be allowed to work while ill with a respiratory disease or hayfever. Such carriers should be placed under the surveillance and care of a hospital staff physician.

Street clothing should not be worn by personnel, including physicians when in contact with patients, and hospital clothing is not to be worn on the street. This is particularly applicable to nurses who wear their uniforms to and from the hospital. Nurses' nylon uniforms should be laundered by a method that will insure sanitization. If laundered at home, this may be accomplished by a final rinse in a suitable sanitizing solution.

In the interest of limiting opportunities for carrying infection from one service to another, a serious attempt should be made to avoid having one person work in more than one service.

Personnel should be given in-service training on the prevention and control of hospital infections. Whenever possible, this should be given during the course of daily work routines. The training should emphasize that personnel are exposed to many sources of infection; that clothing and hands are readily contaminated by contact with skin lesions, dressings, bed clothing, fecal matter, and equipment; that improper mopping, dusting or handling of blankets and bed linen are important means of disseminating the disease producing organisms. Personnel should be impressed with the necessity to protect themselves by wearing masks and cover garments when indicated and by frequent handwashing. The hospital administration must insure that nursing procedures are carried out as carefully during the night shift as during the day time. To encourage and facilitate frequent handwashing, an adequate number of conveniently located handwashing facilities must be provided.

Hospital workers should be encouraged to report their personal illnesses, particularly infections, to their supervisors, and supervisors should be observant in noting and reporting infections. Provision of compensatory sick leave for employees is of great assistance to both hospital and employee.

Medical, Surgical and Nursing Procedures

A. Handwashing and the Use of Antiseptic Rinse

According to studies made by Price, vigorous scrubbing with brush, soap and warm water reduces the basic bacterial flora of the skin at a

constant rate. Irrespective of the initial size of the flora, the number of bacteria is reduced by only approximately one half with each six minutes of scrubbing. He states that "if hands are in frequent contact with contaminated objects, a dangerously large proportion of the resident bacteria (in the skin) may be pathogens, and that in such a case it is almost impossible to disinfect the hands by scrubbing." After testing a variety of germicidal rinses to follow the scrubbing, he finally found that a preparation made up from the following formula was powerfully germicidal, each minute spent in it (at 25 C.) being equivalent to more than 11 minutes of scrubbing and it does not injure the skin:

Ethyl alcohol (95 per cent)	675 ml.
Pure n-propyl alcohol	250 ml.
Distilled water	250 ml.
All measurements made at 78 F. (25 C.)	

According to Price, organisms remaining on surgeons' hands, even after such assiduous treatment, often include pathogens, and these bacteria multiply rapidly beneath the rubber gloves.

The following procedure is recommended in preparation of hands for surgery:

1. Scrub vigorously for 7 to 10 minutes with soap and sterile brush. Either a G-11 type bar or liquid soap may be used.
2. Dry arms and hands with sterile towel (carrying water into next step reduces its germicidal effect).
3. Rinse arms and hands for 2 minutes by the clock in the alcohol mixture described above. This mixture must be prepared accurately and should be fresh. The rinsing should be accomplished by rubbing the skin with sterile gauze, saturated with the solution.

This treatment should reduce the bacterial flora from 50 per cent of the original contamination as result of scrubbing, to less than 2 per cent.

A five minute scrub period between operations, followed by the alcohol mixture rinse appears to be adequate if nothing has been touched following removal of the gloves used in the previous operation.

The addition of compounds, such as hexachlorophene, to soaps appears to reduce the bacterial flora on hands, particularly if used repeatedly and frequently to insure the presence of a residue of the compound remainng on the skin. It should be emphasized that many so-called germicidal compounds may be only bacteriostatic in the concentration used or the length of time they are allowed to act. Persons providing general care to patients with drainng infected wounds certainly must scrub their hands thoroughly after the service has been rendered, and follow this by a rinse with the alcohol mixture described above. If the service to the patient involves contact with dressings or purulent discharge, gloves should be worn.

B. Use of Masks

While the use of a mask does not completely protect either the wearer or the patient, if properly constructed, worn properly and changed frequently, masks can effectively reduce the number of bacteria inhaled or disseminated. Masks must be sufficiently thick to provide an effective filter. They must cover the nose as well as the mouth. After a few minutes of use, they are highly contaminated and must be handled as such—if the mask portion is touched, the hands must be thoroughly scrubbed and disinfected. Preferably, masks should not be worn longer than 30 minutes without changing.

To the extent that it is practical, it is recommended that masks be worn by nurses and physicians while giving direct care to patients with draining infected lesions. In an attempt to limit the introduction of infection into the newborn nursery, it is recommended that masks be worn routinely. However, it is conceded that if masks are not worn properly, changed frequently, and treated as highly contaminated articles, the value of the mask may be outweighed by the potential hazard of contamination of the hands and air through the medium of the mask.

C. Dressing Cart Technique

Ideally, completely individual dressing trays are preferable to a dressing cart which must be used by a number of different persons. Unless scrupulous attention is paid to technique, contamination of commonly used dressing forceps, bandage shears and dressing containers is easily possible. A well trained nurse should be placed in charge of the dressing cart, and she should serve as a reminding guardian of proper technique. Dressings of infected wounds should be handled only by forceps or gloved hands. Soiled dressings, instruments and gloves must be handled with utmost caution to prevent further contamination.

D. Operating Room Precautions

It must be emphasized that under the best of conditions all surgical wounds are contaminated. The problem is to keep such contamination at the lowest level possible to give the tissues the best chance to prevent the development of infection.

Many factors must be controlled to keep the number of bacteria in the operating theatre to a minimum. Mention will be made of the more important ones, as follows:

1. *Ventilation.* Filtered air from the outside should be brought in at a positive pressure so that the flow of the air currents will not be from the corridors into the operating room. Air filters must be washed regularly with a germicide.

2. *Care of floors.* The janitor must be provided with freshly laundered mop heads every day to scrub the floors with a suitable germicide disinfectant. C. W. Walter describes an effective method for sanitizing the floors of operating rooms as follows:

> **At the end of the day, about 10 liters of a detergent-germicide mixture are made up and 1 liter is spilled on the center of the floor. The area is scrubbed thoroughly with a clean mop to completely dissolve any blood or pus. The remaining 9 liters are spilled on the floor and spread with the mop to the periphery of the room, so that the entire floor is covered with a uniform layer of detergent-germicide. Then, begining at the door, the puddle is taken up with a wet pick-up vacuum cleaner. If this procedure is followed for 9 or 10 days, the bacterial count will drop from about 500 per square centimeter to 0 to 1. This is the goal of daily sanitization of the floor.**

During an operation, if blood, pus or dirty sponges drop to the floor, the area should be disinfected immediately with a suitable germicide. Walter suggests the application of Purex to such areas.

3. *Control of traffic.* Studies have shown that movement through a room sets up invisible clouds of dust particles containing bacteria. Also, studies of traffic in and out of operating rooms during operations show that this activity is amazingly high and actually not warranted. During observations made during a 90 minute operation in one study, the doors to the amphitheater were opened and closed no less than 112 times!

According to Lepper, the most important time during which traffic in the surgery should be kept to a minimum is during the first half hour and during last stages when the surgical wound is being closed and the drapes are being removed. Good advance planning and forethought may result in less necessity for making extra trips in or out of the surgical theatre.

Visitors to surgery present a problem, frequently compounded by the tendency to an increase in conversation. Visitors should be allowed in the surgical theatre only if they remove their street clothing and don a clean scrub suit, clean shoes and wear a surgical gown, cap and mask. Studies by Walter show that a gown over street clothing is not sufficiently effective to prevent introduction of an excessive number of bacteria shed from street clothing.

4. *Bringing the patient to surgery.* From the point of view of introduction of infection it is highly undesirable to bring the patient into the operating theatre on his bed brought from the floor. When brought by stretcher cart, the patient's bed blankets should not be used or brought into the surgery. The patient should be covered by freshly laundered sheets and freshly sanitized blankets.

If possible it is preferable to transfer the patient to the surgical table in an anesthesia room. If the patient must be transferred in the surgery, this should be done gently and with the least amount of movement possible, since the movement of linen, blankets and persons creates a considerable air-borne suspension of dust and organisms at a very inopportune time.

5. *Preoperative preparation of skin.* The following technique was described by Philip B. Price and is recommended for use:

a. Before coming to the operating room the patient should receive a bath, with particular attention paid to washing the site of operation with soap and water to remove dirt, fats and transient bacteria.

b. Immediately before operation the site of incision should be washed with gauze dipped in the ethyl alcohol-propyl alcohol mixture described previously, or 70 per cent ethyl alcohol (by weight). This should be allowed to dry slowly to allow sufficient time for it to act.

c. Next apply a solution of 2 per cent iodine in 70 per cent (by weight) ethyl alcohol. The iodine should be allowed to dry slowly and then the dried coat should be

washed off with gauze dipped in alcohol, rubbing the site of incision firmly for 2 or 3 minutes. An alternative to the iodine solution is Scott's alcohol-acetone 2 per cent solution of Mercurochrome, preceded and followed by the alcohol wash.

6. *Cutting casts.* Much care should be taken in cutting dry casts, particularly old casts over infected wounds. The cutting operation raises a fine dust and if the cast is covering an infected wound with old pus-soaked dressings, many of the particles of dust will carry contaminating organisms. For this reason cast cutting should not be done in proximity to surgical theatres. It should be done in a well ventilated room, closed off from the corridor.

E. Use of Antibiotics

All too frequently, infections are encountered which are caused by organisms resistant to all of the antibiotics in common use in a given hospital. This is the natural outcome of the selective annihilation of organisms susceptible to these antibiotics, leaving the resistant strains free to flourish. We have been witnessing a race between the predominance of resistant strains and the discovery and manufacture of newer antibiotics to which these strains are susceptible. The end of this race is not yet in sight.

It has been observed that if a particular antibiotic to which currently prevalent strains of staphylococci are resistant is withheld from use in a hospital, after a period of some months the predominant strains change to again become susceptible to the antibiotic. This finding has suggested the desirability of keeping at least one antibiotic (other than penicillin) from general use, reserving it for serious infections by organisms resistant to all the other antibiotics in common use in the particular hospital. For the same general reasons, the use of routine prophylactic antibiotic treatment before and after clean surgery has been considered to be an undesirable practice.

The Environment

The foregoing sections devoted to the patient, personnel and medical-surgical procedures can be hardly considered apart from the environment. However it remains necessary to devote specific attention to a number of procedures not discussed above, which are important factors in the transmission of infection.

A. Disinfection and Sterilization Procedures

Great faith and reliance is placed upon the efficacy of sterilization procedures, much of which is justified. However, if described procedures are not executed carefully and checked routinely such confidence may not be warranted.

There are several good reference texts available to use as guides and sources of instruction. For hospitals in the state of Washington, the section on Sanitization, Disinfection and Sterilization in the Supplement to Hospital Standards, Rules and Regulations of the State Board of Health is recommended, as it presents in a concise manner the basic principles involved in effecting sterilization, disinfection or sanitization by all of the commonly used methods.

This subject is too extensive for review in this paper, but it is of particular importance to discuss briefly some aspects of the use of chemical sanitizers or germicides.

It is necessary to have a good technical knowledge of the characteristics of chemical agents to be used as sanitizers or germicides to appreciate their limitations. An agent suitable for one use may be entirely unsatisfactory for a different use.

Before release to the market, tests of germicides are carried on in laboratories under strictly controlled conditions. The manufacturer's claims are based on the results of these tests, but the conditions of the tests are not the same as those to which the agent is frequently applied in routine hospital practice. Because those who apply the agent in hospitals frequently are not sufficiently well acquainted with the limitations of the product, an agent may be used under conditions which neutralize its effectiveness.

For instance, in using quaternary ammonium compounds (such as Zephiran) it must be kept in mind that soaps and organic material (such as pus or serum) markedly reduce its effectiveness. Surfaces washed with soap must be very carefully rinsed to be soap-free before application of the agent. Because of this, it is preferable not to use such an agent following washing with soap. The alcoholic tincture of Zephiran is claimed to be able to overcome the neutralizing effect of the soap.

I have witnessed the use of unstable compounds, such as the halogens, under conditions in which it was quite obvious that there would be little reason to hope for effective action. The name, color or odor of germicidal agents seems to produce a profound psychologic effect upon

people to the extent that reason is abandoned and the agents are given mystic powers not actually available. It is important to remember that all of these agents need *time* to act, and that their action may be inhibited by an unsuitable *p*H or the presence of excess organic material.

B. Care of Floors

Floors are probably the largest reservoir of contaminating organisms. Much of the particulate matter from bedding, dressings, and nasopharyngeal secretions that reaches the air finally accumulates on the floor, to be raised and recirculated when drafts set up by movement, or from other sources including dry sweeping, stir up the dust. It is necessary to sanitize floors frequently, and to substitute either damp mopping or vacuum cleaning (with a wet bag) for dry sweeping. The recommended use of vacuum cleaners is questioned by some investigators. There is no doubt that there is some escape of dust from bags as well as from the filter type. Moistening of the bag and use of fine filters changed frequently may decrease this escape.

Dirty mops used day after day without adequate cleaning are a real means of spreading organisms. The usually dark janitor's closet with filthy mops, pails and brooms must be replaced and brought under better supervision. Again, reference to the Supplement to Hospital Standards, Rules and Regulations of the Washington State Board of Health is recommended. Section 6, devoted to Maintenance and Housekeeping, provides an excellent guide for the procedures necessary.

C. Laundry Service

Our studies of contamination of blankets led us inevitably to the laundry and we were amazed at some of the conditions encountered in some hospitals, while others were operating under almost ideal conditions.

The hazardous areas in laundry practice include, first, the sorting room. As Walter has put it, the dirty laundry pile in the sorting room is the compost heap of the hospital—the pile is always there—the bottom is never reached, and the warmth and moisture present provide excellent conditions for the multiplication of bacteria. The sorting room should be separated from the rest of the laundry with exhaust ventilation to the outside. There should be a definite barrier between the sorting room and the area in which the extractors are located to prevent the recontamination of laundry that has already been washed.

The problem of sanitizing blankets to make them safe for use can be solved by adding a synthetic phenolic germicidal compound to the wash water. The action of this compound is not neutralized by soap. Others have recommended a final rinse in a quaternary ammonium compound.

Finally, attention must be given to the collection of dirty laundry and the distribution of clean linen and blankets. Dragging damp hampers of clothing across the floors must not be allowed, nor should clean laundry be delivered to floors in dirty hampers which have been used to collect laundry. Again we may refer to the excellent section on laundry practice included in the Supplement referred to previously.

The practice of distributing cover blankets indiscriminately at night and collecting them for storage during the day must be changed. Each blanket should be used only for one patient and laundered when the patient is discharged. This will automatically alter the custom of laundering blankets routinely only once every 6 or 12 months or until a blanket becomes grossly contaminated.

D. Sanitization of Mattresses and Pillows

Colbeck of Vancouver, B.C., and others have shown how mattresses and pillows may become an excellent reservoir of bacteria if not properly sanitized and protected. Autoclaving of mattresses is not generally feasible and mattresses do not stand up very long under this type of treatment. Practical solution of the problem appears to be the use of impermeable (or only slightly permeable) covers on mattresses and pillows after they have been sanitized. Pillows may be processed in laundries and mattresses wet-sponged and sprayed with a germicide.

E. Care of Utensils and Bedside Equipment

A patient who is a carrier of staphylococci or who has an active purulent infection is capable of contaminating practically all objects handled, such as bed pans, toilet seats, bed tables, bedside lockers and other fixtures and furniture. This is why it is necessary to sanitize all furniture and fixtures daily with a suitable agent. Also this is the reason individual bedside utensils should be provided for each patient and sterilized or sanitized between use for different patients.

The time it takes a patient with infected lesions to contaminate his environment is very short. This is particularly true of ambulatory patients who contaminate door knobs, toilet seats, faucet handles, and bedside equipment within a matter of a few hours. Bathtubs must be thoroughly sanitized each time used.

Conclusion

The emergence of antibiotic resistant strains of staphylococci has led to a serious problem in regard to hospital-acquired infections. A review of the epidemiology of these infections indicates the existence of numerous potential reservoirs and avenues of transmission.

An approach to preventive and control measures through a hospital infection committee is presented. The program suggested includes: (a) an effective system for detecting and reporting infections, (b) methods of managing infected patients and personnel, (c) measures to improve aseptic technique and related nursing procedures, (d) precautions to observe in improved housekeeping and (e) safeguards in environmental control. The success of such a program demands a high degree of cooperation and acceptance of personal responsibility. •

Smith Tower (4).

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Consultants Propose $1 Billion A Year for Medical Research

The nation should treble its expenditures for medical research and double its output of physicians in the next 12 years, in the opinion of an advisory committee that has just made its report to Secretary Folsom. Chairman of the group was Stanhope Bayne-Jones, former Yale medical dean and former head of the joint administrative board of New York Hospital-Cornell Medical Center. Other members were medical educators and research directors in private industry.

The report proposes that the U.S. supply about half the research funds, or half a billion dollars by 1970, with the rest coming from industry and private philanthropy. U.S. now pays about 56 per cent of medical research costs. Between 14 and 20 new medical schools should be built, partly to supply needed researchers, and some of them should be started immediately. The consultants believe dangers of federal control of research can be avoided through vigilant and sustained application of safeguards.

Control of Infections in General Hospitals

Report from a 500 Bed Private Hospital

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and
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The problem of antibiotic resistant staphylococci can be met in an open staff, general hospital but requires cooperation of all concerned. Willingness of the staff to admit existence of a problem seems to be prerequisite to a sound control program.

In early 1956, it became apparent that our hospital community was developing predominant strains of antibiotic resistant bacteria. In this it conformed to the situation noted elsewhere throughout the antibiotic-using world. This report presents the experience of one 500 bed privately operated general hospital in meeting this problem.

General Considerations

There are several pertinent differences between such a hospital and the larger teaching institutions from which most reports have arisen concerning the control and interpretation of infection rates. In a smaller private hospital there are the favorable factors of a somewhat shorter individual hospital stay and, in general, there are fewer house staff and medical student observers and other personnel in the operating rooms and wards. On the other hand, control and evaluation of infection rates in private hospitals is somewhat more difficult because of the following factors:

1. There are usually less available laboratory facilities and personnel for intensive bacteriologic investigations.

2. The volume of clinical material scarcely supports detailed statistical analysis and deductions regarding infection rates. This is particularly true in short-term studies.

3. The number of infected cases (only 4 to 8 at any given time) makes operation of a general isolation department inefficient.

4. There is less centralized authoratative control over details of aseptic management.

5. The large number of attending physicians and surgeons results in some difficulty in communication. At Good Samaritan Hospital in 1957, operations were performed by 129 different surgeons. However, bulk of the surgical patient load, and hence the responsibility, is carried by relatively few staff members. Successful infection control depends upon the suggestions and active cooperation of this group with the nursing department and hospital administration.

It was the surgical committee of the attending staff that first became actively interested in the increasing prevalence of staphylococcus infections. Recently the responsibility has been trans-

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ferred to the newly reactivated isolation committee which now includes members from the surgical, OB, GYN, medical and pediatric sections.

It has not seemed either realistic or constructive to consider that the present status of staphylococcus infections has been the result of a regression from previous standards in aseptic or antiseptic measures. Generally, aseptic and antiseptic measures have not progressed as have anesthesia, blood matching techniques, and other ancillary factors. Contemporary open surgical procedures on grossly contaminated areas such as the gastrointestinal tract and the tracheobronchial tree, often involving prolonged operating time, have been developed which in large part depend on the use of antibiotic agents for infection control. The emergence of antibiotic resistant organisms has dramatized this deficiency and made obvious the necessity for more energetic and refined contamination control than ever previously required.

The organism principally involved in this problem is *Micrococcus pyogenes, var. aureus.* Occasionally, in our experience, nonpigment-forming strains have caused severe infections. All micrococcus organisms recovered from invasive infections have been hemolytic and coagulase positive. The majority of infections have been superficial and individually do not often constitute a significant problem. Considering the widespread prevalence of this organism, the rate of overt infections is surprisingly low. However, *Mi. pyogenes* has several biologic characteristics which make it extremely difficult to irradicate from the community.

1. It readily forms antibiotic resistant strains.[1]
2. It withstands drying indefinitely.[2]
3. It has very weak antigenic properties.[3]
4. The non-disabling nature of most of these infections makes the control of contamination from infected personnel difficult.

At times it has been heartening to consider the precept well-known among epidemiologists, that complete elimination of a pathogenic organism from a community is not necessary in controlling its epidemic manifestations.[4] Also, a single control measure may alone produce great improvement in an epidemic situation.[5]

We were able to establish through public health service facilities that the majority of infecting strains were due to phage type 81/42B/52. This is essentially the same as type 80/81 designated by the International Typing Reference Center. It is the usual strain associated with hospital infections in Oregon and elsewhere.[1,6] Facilities were not available for investigating the correlation between nasopharyngeal and skin cultures and wound infections. For the same reason we could not compare the phage types of hospital-incurred infections with those present on admission.

An approach to epidemic infection control lies along three main lines—reporting, recording and in taking specific measures for decreasing bacterial contamination.

Reporting

The nursing department, through the floor supervisors, has been made responsible for reporting infections. The nursing personnel are in intimate daily contact with each patient and have become quite alert in detecting possible infections.

Recording

Until the part time service of an instructor-nurse was made available, the difficulties in obtaining accurate, current recording of all pertinent data appeared insurmountable.

With the help of the state health department we developed a form incorporating data applicable to most situations (Fig. 1). The individual entries were numbered for later correlation if indicated. A principle function of the responsible nurse is to have this form completed as soon as possible on the same day the infection is reported. When she contacts the physician in charge, the questions often serve to remind him to expedite the necessary measures.

At the end of each month she transcribes the data to a ledger type form and adds a current bar to the graphic correlates (Figs. 2, 3 and 4). We have averaged less than one case daily to be recorded. For this purpose and for supervising isolation and general hygienic measures throughout the hospital, about two hours daily have been adequate.

Figure 2 gives us a monthly reference of the total number of infected cases requiring isolation to the total number of hospital admissions. From 4 to 8 patients are in isolation at any one time under the conditions indicated.

Figure 3 compares the number of wound in-

GOOD SAMARITAN HOSPITAL
INDIVIDUAL EPIDEMIOLOGICAL RECORD

(Date)_____

NURSING STAFF

(1) Name_____(2) Room No._____(3) Chart No._____
(4) Address_____
(5) Age_____(6) Sex_____(7) Race_____
(8) Date admitted_____(9) Date isolated_____(10) Discharged_____
(11) Date of previous discharge (if within last 30 days)_____
(12) Previous Room, Floor and Wing (if hospital incurred infection)_____
(13) Name and bacteriological data of all contacting personnel having infections in past 30 days_____

PHYSICIAN

(14) PHYSICIAN'S NAME:_____
(15) Admitting Diagnosis_____
(16) Present Diagnosis_____
(17) Nature and date of operative procedure_____
(18) Is this a "clean" or "dirty" case (by nature contaminated)?_____
(19) Previous antibiotic therapy past 30 days. Details:_____
(20) Is this a wound infection?_____(21) Is it hospital incurred?_____
(22) Date and characteristic of nasopharyngeal and skin culture of physician:

LABORATORY

(23) Bacteriological data in present infection (cultural characteristics of organism, Antibiotic sensitivity and phage type):_____

Fig. 1.

fections with total major operations. We realize that some infections may become apparent after the patient is discharged. However, this is probably a fairly constant factor from month to month. Minor operations cannot be considered, as the hospital stay in such cases is usually too brief for development of infections.

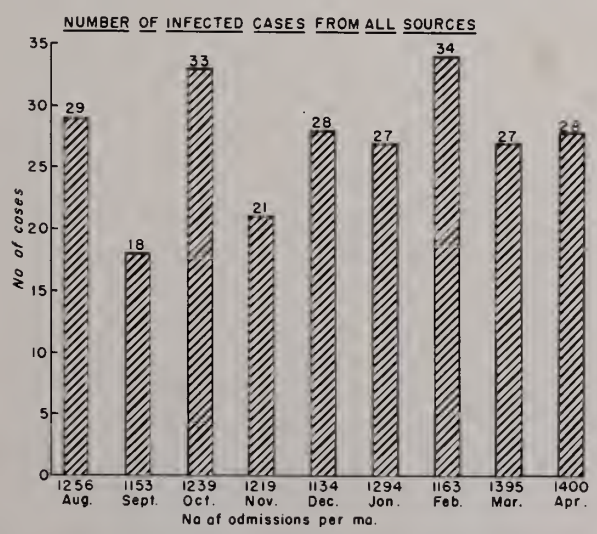


Fig. 2.

In figure 4, as a matter of interest, the number of wound infections is divided by the number of major operations each month. In a hospital of this size it is notable than an increase of several wound infections in a month may increase the rate by several times.

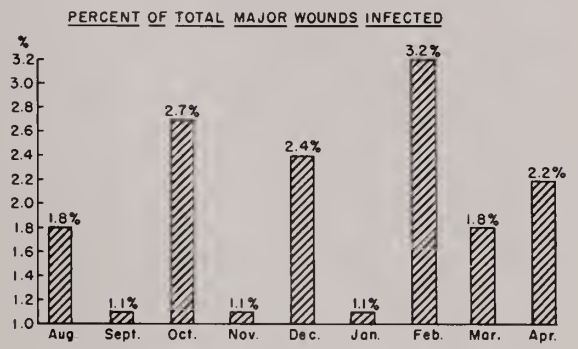


Fig. 3.

Until recorded information is current and complete, statistical and graphic studies are not significant. For instance, it was not until recently that culture and sensitivity tests on suppurating lesions have been approximately complete, even though this service can be obtained without cost

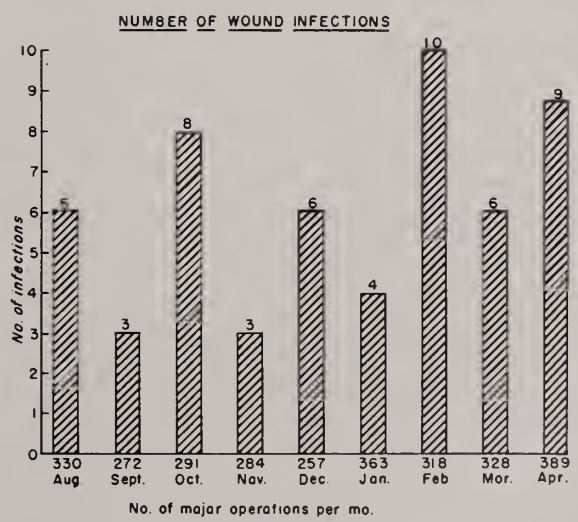


Fig. 4.

to the patient. Now culture and antibiotic sensitivity correlations are being kept on graphic records. For the same reason, records previous to and including the first year of our activities in infection control are not worthy of analysis.

Specific Contamination Control Measures

Concurrently with the development of reporting and recording methods, numerous specific measures were instituted to help control cross contamination.[7,8] Among the more important of these are the following:

1. Sterile bedding, including blankets, was made available for each patient admitted. A blanket drier and stretcher was installed in the laundry and an effective halogenated phenol disinfectant and lint-laying rinse was applied to all blankets. Linens were treated with a softening, lint-laying preparation. Laundering details were reviewed and brought into conformity with recommended practices.
2. Nurses, attendants, and other patient contacts known to have staphylococcus infections were relieved from duty until well.
3. Patients with suppurating lesions were isolated in small private rooms on the same floor. In practice there have been occasional cases in which even less effective segragation measures have been necessary for various reasons.
4. Certain procedures on the wards, such as endotracheal suction and tracheostomy management, were improved by more rigid asepsis.
5. Bathtub decontamination was improved and shower baths were recommended in preference to tub baths.[2]
6. Attention was called, by all means possible, to the inherent danger in prophylactic and pretreatment with antibiotics and the practice has been discouraged.

Other improvements have been principally in the control of dust and skin contamination on the wards and in the operating rooms.

1. Dry dusting and sweeping has been discontinued throughout the hospital.
2. Provisions for hand-washing with an antiseptic detergent was made readily available.
3. The same bis-phenol preparation was advised for bathing patients in isolation and those awaiting surgical procedures. This serves to protect both patients and attendants.
4. Although more intrinsically effective antiseptic preparations for skin use may be available,[9] we have continued to encourage the use of 3 per cent hexachlorophene in a neutral detergent base. There appears to be reliable documentation of its effectiveness when used in adequate concentration.[10] The basic principles seem more important than the specific antiseptic employed.[6]

Operating Suite

In the operating rooms there will always be room for improvement. Asepsis here as elsewhere is only relative.

A. Under the category of dust control the following items have been reviewed and improved wherever possible.

1. Masking methods were investigated. Rapid loss of effectiveness due to drying of droplets was noted. Masks are now changed by all individuals between operations and changing during long operating procedures is advised. Unnecessary conversation in operating rooms is discouraged.[11]
2. Ventilation in surgical rooms was checked and it was found that filtered outside air entered from above, causing air current towards the door.[12]
3. Powdering of hands over a basin of water near the door was instituted and gloving in this area is now routine practice.
4. Use of cloth boot covers or special grounded surgery shoes has become standard practice.
5. Wet antiseptic mopping of surgery floors with clean mops is employed. The more elaborate methods for maintaining floor sterility have not been used except after grossly infected cases.
6. Unnecessary circulation of personnel in and out of operating rooms is discouraged.
7. No street clothing is allowed in corridors of the operating floor.

B. Skin preparation for surgery.

1. Hand scrubbing by those involved in operating procedures is either with 3 per cent hexachlorophene in a detergent base or with soap followed by alcohol rinse. Scrubbing less than 10 minutes is considered inadequate. Cultures of dispensing containers have yielded no bacterial growth.

As it has been shown that over 30 per cent of surgeons' gloves can be expected to become perforated while in use, the importance of optimum preparation is obvious.

2. The patient's skin preparation is in two phases.

a. The preoperative preparation, including shaving of the appropriate areas, has been more satisfactory since both the training of the personnel involved and the inspection of their work has been made the direct responsibility of the surgical supervisor. A 10 minute hexachlorophene detergent scrub of the operative area is part of this procedure. Several days previous preparation is advised whenever possible.

b. Operative skin preparation is by a 10 minute scrub with 3 per cent hexachlorophene on moist sponges, followed by aqueous Zephiran solution. An alternate method using soap, ether, alcohol, and tincture of Zephiran is also used. Any other preparation must be requested and supervised by the operating surgeon.

C. Control of incidental sources of wound contamination, as in open bowel surgery or bacterial peritonitis, must depend upon the individual surgeon's judgment. Pretreatment with broad spectrum antibiotics may result in overgrowth of a resistant organism and this danger has been emphasized.

D. Factors influencing wound and patient resistance to infection are also best controlled by the individual physician. The use of isotonic saline to moisten all sponges has probably been of some help in maintaining wound resistance to contamination. Irrigation of wounds with isotonic saline at body temperature is advised whenever practicable.

Conclusions

1. The incidence of staphylococcus infections in hospital communities can be controlled by more intensive application of standard concepts in aseptic and antiseptic methods.

2. It cannot be reduced by more extensive use of antibiotics.

3. Active cooperation of the attending staff, the nursing department, and the hospital administration is vital to the success of an infection control program in a private general hospital.

4. A well-trained nurse assigned to the responsibility of maintaining current reporting, recording, and control measures has been the key to our understanding and control of local infection problems. •

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Addendum

Records obtained since the above manuscript was presented are almost identical to those reported here.

The Cancer Problem in the State of Washington

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Washington statistics, taken from Vital Statistics of the United States, differ from the national only in frequency of prostatic cancer. On the basis of organ classification, the pattern of cancer occurrence seems related to the volume of cells at risk.

This is an attempt to characterize the cancer problem in the state of Washington by its size, types and peculiarities; to explore what inferences may be drawn on etiology from the data; and to suggest studies for the future. This undertaking is based on mortality statistics published by the federal government.[1] These, in turn, were compiled from what the doctors of this state wrote on death certificates. The data have the same accuracy as those certificates.

Because the data are based on cancer deaths and many patients with cancer are cured each year, this analysis may be said to deal only with the size of the unsolved cancer problem in the state of Washington and not with the total problem. To the extent that the doctors in this State cure cancers, the problem is already solved. Because cancer is not a reportable disease, the total size of the problem is unknown. However, it may be calculated quite closely by adding to the fatal cases of each site the number cured, based on estimations of the state-wide, general cure rate for each type of tumor.

The figures for 1955 were used in this analysis because they were the latest available and because it is desirable to make certain five-year comparisons. The analysis includes the malignant neoplasms and the leukemias. Whenever the term *cancer* is used it is a synonym for these two categories of disease. The data apply only to residents of the state of Washington regardless of whether they died within or outside of the State.

It is emphasized that the data in a statistical analysis such as this may shed light on two problems—namely, on cancer control and on etiology of the tumors. The figures show the size of the problem and the present position of each tumor. From these figures the requirements in lay and professional education and in facilities for detection, diagnosis, and treatment can be estimated. If, for example, some type of tumor requires special diagnostic and therapeutic facilities, the size of that need can be calculated from the annual number of cases.

Size of the Problem

In 1955 the record shows 3,959 deaths attributed to malignant neoplasms and leukemia in the state of Washington (table 1). Since 24,517

Table 1. Cancer deaths in relation to deaths from all causes, by sex. State of Washington, 1955.

	Males		Females		Both Sexes	
	Number	%	Number	%	Number	%
Deaths from all causes	14,812	60	9,705	40	24,517	100
Deaths from cancer	2,169	55	1,790	45	3,959	100
Percentage deaths from cancer		15		18		16
U.S.A. total deaths	872,638	57	656,079	43	1,528,717	

(From Vital Statistics of the United States, Vol. 2, 1955.)

Presented at School of Medicine, University of Washington, May 3, 1958.

deaths were reported from all causes, cancer accounted for 16 per cent of the total, or about one in six.

Cancer was responsible for 15 per cent of all deaths in males and for 18 per cent in women. However, the actual numbers were larger in the males—2,169 versus 1,790. The great excess of deaths from all causes in males over females in Washington (table 1) can, no doubt, be accounted for by persons familiar with the local situation. A disproportionate immigration of unmarried men suggests itself as a probable partial explanation. In Washington, 60 per cent of all deaths occurred in males compared with a national figure of 57 per cent.

If an average of about 20 per cent of the cancers of all types and stages in the State are cured, then the annual total of cases is about 5,000. The number living in the State at any one time (i.e., prevalence) would be larger than that figure, however, because average survival from onset is more than one year.

Nature of the Problem by Site

The anatomic distribution of the 3,959 fatal tumors by primary sites is given in table 2. Here

Table 2. Deaths in the state of Washington from malignant neoplasms by site, rank, number, and percentage (1955).

Rank	Site	Deaths	%
1	Large intestine (colon plus rectum)	558	14.1
2	Lung, Trachea, Bronchi (primary plus some unspecified)	425	10.7
3	Stomach	399	10.1
4	Breast	371	9.4
5	Prostate	291	7.4
6	Pancreas	221	5.6
7	Uterus (body plus cervix)	213	5.4
8	Leukemia and aleukemia	172	4.3
9	Malignant lymphoma (lymphosa, Hodgkin's, etc.)	155	3.9
10	Ovary, Fallopian tube, broad ligament	131	3.3
11	Bladder	119	3.0
12	Biliary passages and liver (primary)	95	2.4
13	Brain and nervous system	77	1.9
14	Kidney	73	1.8
15	Esophagus	65	1.6
16	Oral cavity (omitting pharynx)	45	1.1
17	Skin	44	1.1
18	Larynx	28	0.7
19	Thyroid	25	0.6
20	Bone	24	0.6
	Totals, 20 sites	3,531	89.0
	Totals all sites	3,959	100.0

(From Vital Statistics of the United States, Vol. 2, 1955.)

are found the 20 commonest tumors arranged in the order of their frequency, with the number of each and their percentage of the total. It is seen that 89 per cent of all cancer deaths were accounted for by 20 types. The figure is actually larger than that because the remaining 11 per cent included many cases in the same 20 sites but not specifically so designated on the death certificates. The dozens of other sites collectively account for less than 10 per cent of all cancers. These 20 tumors, therefore, comprise most of the cancer problem. Unless improvement can be made in this group, the situation will not be greatly bettered. These 20 tumors will form the basis for further analysis of the problem.

Several general comments should be made about the members of table 2. Data on these 20 tumors are not of equal reliability. The figures on the external and easily accessible growths are probably the most reliable. Among the internal tumors, the second ranking item (lung, trachea and bronchi, 425 cases) contains some tumors in which the death certificate did not specify whether they are primary or metastatic (231 such cases). This figure for lung cancer may, therefore, be unjustifiably swollen by inclusion of secondary growths. On the other hand, the twelfth category—biliary passages and liver—is an unnatural melange of at least three anatomically and possibly etiologically distinctive tumors—namely, those of the gallbladder, of the common, cystic, and hepatic ducts, and of the liver. A large number of cases (51 tumors) were recorded as being in the liver (code 156A) but were not qualified as primary or secondary. These were eliminated from table 2 on the basis that most of them were probably metastatic tumors.

Cure rates are unequal in these 20 tumors, and this fact influences their number and position in table 2. The cures range from a high percentage of all skin cancers, through moderate percentages for breast and uterus, and low precentages for stomach and esophagus, to zero for the leukemias. The advent of a new palliative therapy which lengthens average survival results in a temporary depression of the position of that tumor in such a table, but the tumor eventually comes back to its former position after a lag period equal to the average length of palliation afforded.

It is noteworthy that more than half of all reported fatal cancers (2,044 cases) occurred in five anatomic sites. These were the large intestine, stomach, lung, breast, and prostate. Thus, in differential diagnosis these sites and tumors merit a high index of suspicion. Some of the cancers in these sites are curable today and, perhaps, by concentrating on them in education, diagnosis and therapy much good could be accomplished.

Problem of the Control of Cancer

Before leaving table 2, it can be scanned as a measure of the size and nature of the cancer problem with respect to control and to research in Washington. If a great reduction in cancer mortality is to be made, it must be done among these 20 tumors.

Inasmuch as intensive educational efforts have been made in recent years, beginning about 1948, especially with respect to mammary and uterine cancer, one can begin to measure the efficacy of that program. By the use of periodic breast self-examination and of vaginal smears to detect the early stages of these two important tumors, it was hoped that sizable reductions could be made in mortality. In table 3, cancer

Table 3. Comparisons of cancer deaths in the state of Washington in 1955 and 1950.

Rank in 1955	Site	Deaths in 1955	Deaths in 1950	% change
1	Large intestine	558	528	+ 5.7
2	Lung, Trachea, Bronchi	425	252	+ 68.6
3	Stomach	399	394	+ 1.3
4	Breast	371	265	+ 40.0
5	Prostate	291	221	+ 31.7
6	Pancreas	221	161	+ 37.3
7	Uterus	213	217	− 1.8
8	Leukemia and aleukemia	172	152	+ 13.1
9	Malignant lymphoma	155	150	+ 3.3
10	Ovary, Fallopian tube, broad ligament	131	107	+ 22.4
11	Bladder	119	99	+ 20.2
12	Biliary passages and liver	95	77	+ 23.4
13	Brain and nervous system	77	71	+ 8.4
14	Kidney	73	59	+ 23.7
15	Esophagus	65	52	+ 25.0
16	Oral cavity	45	47	− 4.3
17	Skin	44	33	+ 33.3
18	Larynx	28	27	+ 3.7
19	Thyroid	25	16	+ 56.2
20	Bone	24	35	− 31.4
	Totals 20 sites	3,531	2,963	+ 19.2
	Totals all sites	3,959	3,282	+ 20.6

(From Vital Statistics of the United States, Vol. 2, 1955 and Vol. 3, 1950.)

mortality is compared in 1950[2] and 1955. It is evident that, as far as this period of time is concerned, those hopes were not realized.

It is seen that total cancer mortality in Washington increased about 20 per cent in those five years. This is approximately proportional to the increase in the population and in the number of older people in the State. The rise, therefore, does not represent an increase in risk to the disease on the part of individual persons.

It is obvious that any improvements in therapy did not match the increase. Inasmuch as the over-all increase was 20 per cent, this figure should logically apply to each type of cancer. In table 3 it is seen that it does not. Thus, in six tumors the increase was 30 per cent or more. This is 10 per cent or more above the general average. The six cancers were those of the lung, breast, prostate, pancreas, skin, and thyroid. How much, if any, of this increase is explained by improvements in the diagnosis and reporting of these six varieties of cancer and how much represents a true increase, could only be answered by the physicians in Washington. Note that the greatest rise occurred in lung cancer (68.6 per cent). In this tumor the increase is now generally accepted as real.

In contrast, eight tumors failed by 10 per cent or more to increase proportionately to cancer as a whole. These sites were the large intestine, stomach, uterus, malignant lymphomas, nervous system, mouth, larynx and skeleton. In three of these—namely, uterus, oral cavity, and bone—there was an actual reduction in deaths during the five-year period; this was greatest in the bone tumors. It is possible that this decrease is accounted for by a change in the classification of the myelomas.

The disappointing and disturbing fact that emerges from this table is the failure of breast and uterine carcinoma mortality to show substantial improvements. Breast cancer actually showed a considerable rise. The slight reduction in uterine cancer mortality was surpassed by two tumors (mouth, bone) and nearly equalled by four others (stomach, malignant lymphomas, brain, larynx) of types in which no special intensive educational drive had been made, and in which cures are few. One can question, therefore, until additional evidence is at hand, whether the reduction in the mortality of uterine cancer was the result of the special educational efforts, or whether it represents a trend from other and obscure causes, as in the case of the other members of this group. The current five-year period should provide evidence on this point.

Etiologic Implications

Regional Peculiarities:

Is there anything peculiar in the anatomic site distribution of cancer in the state of Washington which would point to special etiologic factors? Is any variety unusually frequent or infrequent? In table 4 the cancergram of Washington is compared with the national figures.

It is seen that the percentage distribution of the 20 commonest cancers in Washington parallels quite closely the national figures, with exception of the prostate in which there seems to

Table 4. Comparison of percentage distribution of cancer by site in the state of Washington and the United States, 1955.

Rank in U.S.A.	Site	% of all Cancer In U.S.	% of all Cancer In Wash.	Rank in Wash.
1	Large intestine	15.0	14.1	1
2	Lung, Trachea, Bronchi	11.1	10.7	2
3	Stomach	9.2	10.1	3
4	Breast	9.1	9.4	4
5	Uterus	6.3	5.4	7
6	Prostate	5.6	7.4	5
7	Pancreas	4.7	5.6	6
8	Leukemia and aleukemia	4.5	4.3	8
9	Malignant lymphoma	3.5	3.9	9
10	Bladder	3.0	3.0	11
11	Ovary, Fallopian tube, etc.	2.9	3.3	10
12	Brain and nervous system	2.2	1.9	13
13	Biliary passages and liver	2.2	2.4	12
14	Mouth	1.8	1.1	16
15	Esophagus	1.8	1.6	15
16	Kidney	1.8	1.8	14
17	Larynx	0.9	0.7	18
18	Multiple myeloma	0.9	—	
19	Bone	0.8	0.6	19
20	Skin (except melanoma)	0.7	1.1	17
	Totals	88.0	88.4	

be an excess. The relative ranks of some tumors in Washington differ from the larger national series, but such deviations are probably not significant because they are based on relatively small numbers, again with the exception of prostatic carcinoma. Significance of the higher relative frequency of cancer of the prostate gland is not apparent, but the matter appears worthy of special study.

Race:

Racial comparisons of cancer are currently of interest.[3] From the data available in the mortality tables as now constituted, such studies were not possible in Washington. They could, however, be made by special tabulations, and they might be quite profitable. The vital statistics show sizable numbers of deaths each year in Negroes, Indians, Japanese, Chinese, and others. (See table 5.) By adding the cases for 5 or 10-

Table 5. Racial distribution of deaths from all causes in the state of Washington, 1955.

Ethnic Group	Males	Females	Totals
White	14,328	9,429	23,757
Negro	195	122	317
Indian	161	114	275
Japanese	63	28	91
Chinese	20	4	24
Other	48	8	53
Total			24,517

year periods, enough would be present in each group to reveal differences in cancer distribution if such existed.

Sex:

The peculiarities in sex distribution of cancer, apart from those that are sex-limited, sometimes suggest etiologic factors. When the mortality data for the state of Washington are separated by sex, as in table 6, some interesting facts are

Table 6. Distribution of cancer deaths by sex in the state of Washington, 1955, numbers and rank.

Site	Males Rank	Males Deaths	Females Rank	Females Deaths
Large intestine	4	269	2	289
Lung, Treachea, Bronchi	1	361	8	64
Stomach	3	277	5	122
Breast	18	4	1	367
Prostate	2	291		——
Pancreas	5	144	6	77
Uterus		——	3	213
Leukemia and aleukemia	6	101	7	71
Malignant lymphoma	7	101	10	54
Ovary, Fallopian tube, etc.		——	4	131
Bladder	8	86	11	33
Biliary passages and liver	12	39	9	56
Brain and nervous system	11	47	12	30
Kidney	9	53	13	20
Esophagus	10	49	15	16
Oral cavity	14	29	16	16
Skin	13	30	17	14
Larynx	15	26	19	2
Thyroid	17	7	14	18
Bone	16	15	18	9
Totals, 20 sites		1,929		1,602
Totals, all sites		2,169		1,790

disclosed. The results can also be compared with the national figures. Lung cancer is seen to be the commonest fatal cancer in men, and it was commoner, on the order of six-fold, in men than in women. The ratio of breast cancer in females and males was about 100:1, which is approximately equivalent to the relative numbers of epithelial cells available for carcinogenesis in the two sexes. Cancer was also commoner in the female biliary system (where gallbladder diseases in general are more frequent), the thyroid, and the large intestine.

Rural versus Urban:

This geographic comparison, currently of great interest in respiratory tract and other cancers, also was not made because the necessary data were not readily available. It should be pointed out, however, that the state of Washington offers interesting possibilities for such studies. In the vital statistics, deaths from all causes are almost equally divided between residents of metropolitan and non-metropolitan counties. (See table 7.) The numbers in each category are large

Table 7. Comparison of deaths from all causes in rural and urban areas state of Washington, 1955.

	Deaths
In Metropolitan counties	14,158
In non-Metropolitan counties	10,359

enough to warrant comparative analysis of the tumors following special tabulations. This tech-

nique should disclose special carcinogenic occupational hazards that might exist if they were great.

Cancer Epidemiology by Organs:

It has been pointed out elsewhere[4] that the occurrence of cancer can be epidemiologically studied by using the cell populations of organs as the units at risk instead of persons as in conventional epidemiology. Cancers occur corresponding to every type of cell in the body, and thus every cell can be regarded as being at risk to neoplastic conversion. Regarded as communities of cells, how much difference is there between organs in the amount of cancer?

Using the state of Washington data on cancers in the digestive organs, table 8 has been prepared. The approximate weight of the epithelial cells in each site is used as a rough measure of the relative numbers of cells at risk to give rise to cancer. The actual number of cancers in 1955 is given in an adjacent column. Finally, the number of cancers is calculated per unit measure of cell population, the gram. The range of variation in cancers per unit is quite small—slightly more than a factor of two. Considered in this way the big difference in the total numbers of the cancers in these five locations is seen to be explainable on the basis of unequal numbers of cells at risk. Actually, a cell in one site has about as much chance of giving origin to a cancer as in others. The cells in two parts of the digestive system fall far out of line, contributing far fewer tumors than they should if they were equally susceptible and equally exposed. These exceptional organs are the small intestine and the liver.

Table 8. Relation of the numbers of cancers to cell populations in the digestive system.

Site	Weight of Epithelium in Grams (Approx.)	Cancers	Cancers Per Gram
Mouth	8	45	5.6
Esophagus	10	65	6.5
Stomach	120	399	3.3
Pancreas	90	221	2.5
Large intestine	200	558	2.8

Summary

An attempt has been made to characterize the cancer mortality problem in the state of Washington by amount and anatomic type, and to draw etiologic inferences from the data.

The 3,959 reported cancer deaths comprised 16 per cent of deaths from all causes. In males 15 per cent and in females 18 per cent of all deaths were attributed to the neoplastic diseases. Total number of cases per year is estimated to be about 5,000.

The tumors in 20 anatomic sites accounted for over 90 per cent of all fatal cancers. Thus the main problem is rather simply delineated. The needs in facilities and personnel for adequately detecting and treating the cancers of types that require unusual and special measures can be calculated.

In the five-year period, 1950-1955, a 20 per cent rise in cancer mortality was probably accounted for by an increase in the older population in the State. Increases of 30 per cent or more occurred in six major tumor sites, of which lung cancer showed the greatest rise (68.6 per cent). Increases of only 10 per cent or less took place in eight major tumors, with actual reductions in three (uterus, mouth, bone). It is noteworthy, in view of the special educational efforts that have been made, that mammary cancer showed a sizable increase and uterine cancer a slight decrease but equalled by that of others.

No peculiarities were seen in the cancergram of Washington compared with that of the nation except for a higher relative frequency of prostatic cancer.

Many of the big differences in the amount of cancer in the organs of the digestive system could be accounted for on the simple basis of relative size of the populations of cells at risk to carcinogenesis. •

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Pharmacologic Treatment of Depression

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Depression is one of the commonest and most painful of all the emotional illnesses encountered in general practice. The ever present possibility of self destruction in depressed people makes the recognition and treatment of this condition especially important as no doctor wishes to lose a patient by suicide.

Diagnosis

The recognition of depression is often difficult as it may masquerade behind symptoms characteristic of almost any organic disease. The diagnosis depends on the elicitation of the following symptoms, not all of which need be present:

A. MENTAL
1. *Depressed spirits.* Crying spells. Hopelessness, suicidal ideas.
2. *Guilt feelings.* Self blame. Feelings of inadequacy, unworthiness and inferiority.
3. *Difficulty in concentrating.* Inability to make decisions.
4. *Loss of interest.* No drive or spontaneity.
5. *Apprehension.* Fears of impending catastrophe, insanity, or death.

B. PHYSICAL
1. *Loss of appetite and weight.* Indigestion. Constipation.
2. *Insomnia.*
3. *Fatigue.* Often more severe than with organic disease.
4. *Nervous tension.* Multiple psychosomatic complaints.

If the patient usually feels worse in the morning and better in the afternoon and evening, this fact is diagnostic.

Until very recently the treatment for depression has consisted chiefly of psychotherapy, with electroshock for the more severe cases. Fortunately, most attacks are self limited and the patient recovers within six months to a year regardless of the therapy administered. For the most part, the treatment of depression with drugs has been disappointing, although some symptomatic relief has been obtained in milder cases.

Amphetamines

The amphetamines (Dexedrine, Desoxyn, Methedrine) have been in use for many years and are still the most consistently effective antidepressants available for immediate help in mild cases. The side effects of increased tension (somewhat reduced by the addition of a sedative, as in Dexamyl), insomnia, loss of appetite and, occasionally, habituation, limit their usefulness in office practice. Although somewhat less effective, pipradrol (Meratran) may be a useful substitute for the amphetamines in that it produces less side effects and is not habit forming. In my experience, methylphenidate (Ritalin) has not been met with much patient acceptance.

Tranquilizers

Of the newer drugs, the tranquilizers have been rather disappointing. They often aggravate or even produce depressions. They may be of some help, however, in those cases where anxiety, tension, and agitation are predominant. Special antidepressant properties for certain tranquilizers, such as are claimed for mepazine (Pacatal) and meprobamate plus benactyzine (Deprol), have not, in my opinion, been proven.

Psychic Energizers

As might be expected, the most promising leads for an effective antidepressant are coming

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from the newer psychic energizers. Of these, iproniazid (Marsilid), a monoamine oxidase inhibitor, is the most interesting. In spite of the fact that it fails to help many cases and is quite toxic, it does produce dramatic relief in many severely depressed patients. Beneficial effects may appear within a few days or only after several months of medication. I routinely use iproniazid in moderate to severe depressions and resort to electroshock only when iproniazid fails or there is imminent risk of suicide. Iproniazid should not be given in doses larger than 50 mg. a day and in some patients this has to be cut to 10 mg. every two or three days in order to avoid dangerous side effects.

Commonest side effect is postural hypotension with syncope and injury from falling. This may be combated by reduction of dosage and administration of cortisone or dextro-amphetamine. I often give dextro-amphetamine along with the iproniazid as the two seem to complement each other. Iproniazid may produce paresthesias which are usually relieved by the supplemental administration of 25 mg. daily of vitamin B_6 (pyridoxine). Other side effects may be hyperhidrosis, constipation, difficulty in micturition, sexual impotency, dermatitis, and dependent edema. The greatest danger has been toxic hepatitis. Several deaths attributed to this complication have been reported. Improved compounds with increased effectiveness and less toxicity are being developed and will undoubtedly replace iproniazid as soon as they have had adequate clinical trial.

Another new drug called deanol (Deaner) acts as a psychic energizer by promoting the formation of acetylcholine in the brain and thereby facilitating neuron activity and the transmission of impulses. I have used it for over a year now, and about one half of my mildly depressed patients have preferred it to the amphetamines. It is without side effects except for a feeling of overstimulation on high dosage. It has been of no value in the treatment of severe depressions.

Conclusions

The amphetamines and a new psychic energizer, deanol, are the safest and most consistently helpful drugs for the treatment of mild depressions. The most beneficial drug for moderate to severe depressions is iproniazid. It is quite toxic, however, and not always efficacious.

There is a great need for more adequate antidepressive pharmacologic agents with less side effects. Current research in this field is showing much promise for the development of more satisfactory drugs for the treatment of this distressing illness. •

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Your Rights Insured

As a rule, the things you do to enforce your rights, say in a contract, come under adjective or procedural law. The rights themselves are a part of "substantive" law.

You need both procedural and substantive law. For what good would your rights be if you had no way to enforce them? All you need to turn a free country into a tyranny is to take away the means to protect your rights. The rights alone are helpless.

But since everybody knows that your rights can be protected, if need be in court, most people rarely need to go to court. For each contract or lease, say, that lands in court you could count millions at work in peace to the gain of both parties.

A large part of our law sets out your procedural rights. It sets up rules of evidence, so that you can have a fair trial. It also gives you the right to a jury trial, to subpoena unwilling witnesses to testify on your behalf, to have a lawyer represent you and to have the court's judgment carried out, if need be, by the Sheriff or even the armed forces. Procedural law sets out the steps you may take to appeal your case to a higher court.

Much of the most dramatic parts of law—the kinds that make the big headlines—are procedural. The many writs of a court—such as writs of habeas corpus, of mandamas or attachment—are the orders of a court to enforce your rights. They are parts of the procedural or adjective law.

Count these stories—stories of injunctions, of consent decrees, or contempt citations—and you think that the law deals chiefly with conflict. But the unbannered story of the law lies not in conflict, but in peace. Most men, knowing that a way exists to enforce their rights, manage their affairs smoothly and efficiently.

(This column is written to inform, not advise, facts may change the application of the law.)

Washington State Bar Association

Disseminated Coccidioidomycosis

Case Reports

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In 1892 Wernicke,[1] and later Posadas,[2] in 1900, described a condition now known as disseminated coccidioidomycosis or, in South America, Posadas-Wernicke disease. In 1937 Dickson[3] described the acute benign form of the disease, previously known as valley fever, desert fever and San Joaquin Valley disease. He demonstrated the relationship between the acute and the disseminated form showing that they were both variations of the same disease caused by the fungus *Coccidioides immitis.*

On the North American continent there is an endemic area of coccidioidomycosis which parallels the border between the United States and Mexico from Texas to California. In addition there are endemic areas in the San Joaquin Valley of California, southwestern Utah and southeastern Nevada.[4] In these areas it is not uncommon for a large percentage of the population to have acquired the primary disease and to have recovered without event. However, in a certain percentage of those with the primary disease the disseminated form occurs.

In the Northwest, individuals who have had the primary disease frequently are discovered by routine skin testing and an occasional individual with the active primary form is seen. This latter occurrence is due to the rapidity of travel between the endemic areas, which are used as fall and winter resorts, and the Northwest. However, the disseminated form of the disease is rarely seen in the Northwest.

The disseminated disease may take two forms; namely, a chronic slowly progressive form and an acute disseminated miliary form. The former is seen occasionally in residents of the Northwest while the latter is rarely, if ever, seen. We do not know of any case of acute disseminated coccidioidomycosis reported from the Northwest. It is for this reason, and also to arouse more interest in a condition which will be seen more frequently because of increased travel, that we present the following two cases, one with chronic disseminated coccidioidomycosis and the other with acute disseminated coccidioidomycosis. No attempt will be made to review the literature, several excellent articles of this type having been published in recent years.[5-7]

CASE REPORTS

Case 1. A 29 year old Caucasian male, was admitted to the Veterans Administration Hospital, Portland, Oregon, for the first time July 9, 1956, with chief complaint of joint swelling and weakness. The present illness began shortly after the patient was discharged from a private hospital in Portland where he had undergone spinal fusion operation in November of 1955. The operation was performed, according to the patient, for ruptured intervertebral disc following back injury. About December 12, 1955, the patient developed chills, fever, drenching sweats, chest pain and cough. The symptoms continued and he was readmitted to the private hospital for approximately three weeks. About December 28, 1955, a nodular lesion appeared on his eyelid. In the next two weeks the fever disappeared but skin lesions appeared over most of the body. Many of these subsequently became purulent and drained. On February 17, 1956, he was admitted to the Multnomah County Hospital with tentative diagnosis of blastomycosis. At that time there was generalized lymphadenopathy and scattered skin lesions over all the body areas, especially on



Fig. 1. Case 1. First month of illness. Multiple nodular densities disseminated throughout both lung fields.

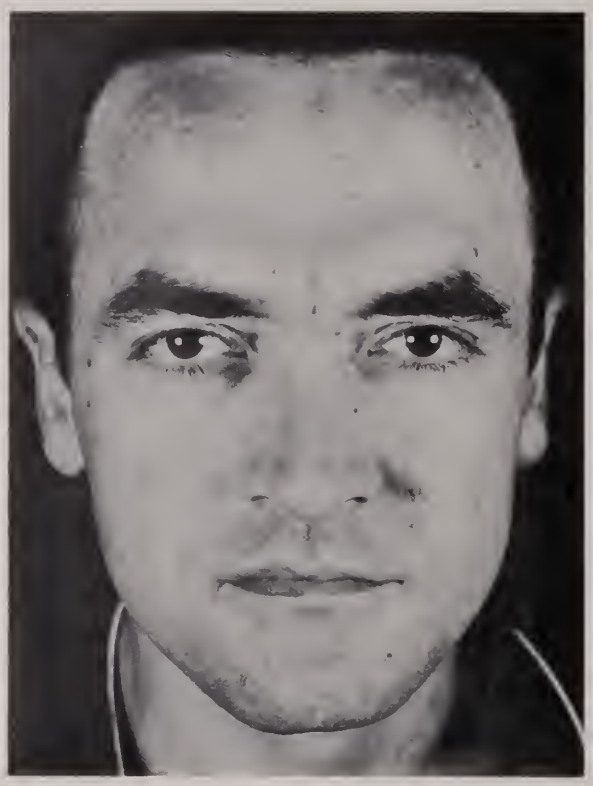


Fig. 2. Case 1. Multiple facial lesions in all stages of development and healing.

the face. Cultures of drainage from the skin lesions revealed *C. immitis.* Biopsy of a skin lesion also was interpreted as showing coccidioidomycosis. Chest x-ray (figure 1) revealed multiple nodulation throughout both lung fields. The patient was discharged, then subsequently readmitted to Multnomah County Hospital three more times for evaluation and therapy. He was treated with potassium iodide and ethyl vanillate during that time. In March 1956 swelling of the left knee, right ankle and both elbows occurred. Weakness became progressively worse in the two months prior to his admission to the Veterans Administration Hospital.

Past history revealed that the patient had been in California in 1944, 1946 and 1949. However, to his knowledge he had never been in the San Joaquin Valley nor had he ever been in southeastern California, Arizona, New Mexico or Texas. From 1949 until the present illness he had lived in Portland, leaving only for a trip to Michigan in 1954. Prior to the present illness the patient had been employed as a mechanic, working on the under-carriage of trucks which had traveled through the San Joaquin valley on their route to Portland.



Fig. 3. Case 1. Typical chronic lesions of elbow and third finger areas.

Examination on admission to this hospital revealed a chronically ill Caucasian male with a temperature of 99.4 F. Moderate swelling and marked tenderness of the right ankle, left knee and both elbows were present. There was no erythema or increased temperature noted over the joints. Scattered over the body were 18-20 elevated crusting lesions with central depressions and surrounding erythema (figures 2-3). They varied in size from 0.5 cm. to 2.0 cm. in diameter. They were neither indurated nor tender. The rest of the examination was negative.

The WBC was 7,850 with a differential of 66 segmented neutrophiles, 5 band neutrophiles, 22 lymphocytes, 3 monocytes and 4 eosinophiles. Sedimentation rate was 46 mm. in one hour (Wintrobe). Hemoglobin was 13.5 Gm. and the hematocrit was 42. A coccidioidin skin test was negative in 1:1000 dilution. Complement fixation tests for blastomycosis and histoplasmosis were negative while the test for coccidioidomycosis was positive in 1:256 dilution. X-ray of the chest now revealed very slight nodulation throughout both lung fields (figure 4). Bone survey was normal.



Fig. 4. Case 1. Chest x-ray taken during the eighth month of illness. Almost complete resolution of the process shown in figure 1.

During the third hospital week the upper portion of the spinal fusion incision became swollen. Aspiration of this area revealed purulent material in which *C. immitis* was found. This area subsequently drained a large amount of purulent material spontaneously. The left knee and right ankle became more swollen during the third hospital month and anemia and fever were noted. A course of amino-stilbamidine was given in August of 1956 but was without apparent benefit. The patient was discharged on November 13, 1956, and subsequently readmitted three more times during late 1956 and early 1957. During that period of time Avosulfon therapy was instituted. The skin lesions regressed in January and February of 1957. However, the joints remained swollen and the left knee required needle drainage. Concomitantly casts were made for the right ankle and the left knee areas. The patient



Fig. 5. Case 1. Left elbow showing fluctuant swelling. Scars from healed coccidioidal lesions in surrounding areas.

remained slightly anemic. He was readmitted on April 29, 1957. Most of the skin lesions had now healed. The right ankle had decreased in size and was less painful. The left knee and both elbows were swollen with the left elbow area being fluctuant (figure 5). The right jaw area was also swollen. The 1:100 coccidioidin skin test was still negative. The blood count was unchanged. Serum albumin was 3.6, the globulin 4.2. X-ray of the right ankle revealed only demineralization. The left knee showed destruction of cartilage and the coronoid process of the left ulna showed slight decrease in density. Following discharge in November 1957, the patient has remained at home in a semi-ambulant status. The joints are only minimally swollen and only two skin lesions remain. He has continued on Avosulfon therapy.

Comment

This case represents one of chronic progressive disseminated coccidioidomycosis which presented primarily as an acute miliary dissemination to the lungs. This latter process cleared only to be followed by chronically progressive lesions in the soft tissues, skin and joints. The acutely disseminated process in the lungs may have been helped by ethyl vanillate and saturated solution of potassium iodide though this is difficult to verify. The chronic progressive disseminated lesions, however, do not appear to have been helped by any form of therapy up to this time.

Case 2. A 59 year old negro male was admitted to the Veterans Administration Hospital, Portland, July 2, 1956, with complaints of chills, fever, cough and chest pain of approximately two weeks duration. Early in the course of the illness he had been treated with penicillin by a physician, but without apparent benefit. Prior to admission a generalized skin eruption appeared.

Social history revealed that the patient was an itinerant fruit picker whose permanent residence had been in Bakersfield, California, for the previous ten years. He arrived in the Portland area approximately three weeks prior to admission to this hospital.

Examination on admission revealed an acutely and seriously ill negro male with blood pressure of 110/80, pulse 96 and temperature of 103 F. There was impaired resonance over both lower lung fields with decreased breath sounds over the right lower chest. There was an erythema multiforme type eruption over the lower abdomen, lower back and gluteal areas. Also several fine nodular skin lesions were present over the forehead.

Laboratory data revealed WBC of 39,000 with 69 segmented neutrophiles, 5 band neutrophiles, 2 metamyelocytes, 18 eosinophiles, 3 lymphocytes and 3 monocytes. Hemoglobin was 13.8 Gm. and the hematocrit 48. Urinalysis, serologic test for syphilis, urea nitrogen, blood glucose, serum proteins, BSP test and cerebral spinal fluid were all normal. Sputum cultures and smears were negative for fungi and tubercle bacilli. Chest x-ray showed miliary type lesions disseminated throughout both lung fields (figure 6).



Fig. 6. Case 2. Miliary dissemination of lesions throughout both lung fields.

Following admission the patient continued to run fever of about 103° daily. The eruption noted on admission became nodular and subsequently pustular with lesions being noted over the face, forehead, neck, abdomen, upper extremities, back and gluteal areas (figure 7). Pus from these lesions showed many spherules typical of *C. immitis*. Complement fixation test for coccidioidal infection was negative while the precipitin test was four plus in 1:10 dilution. Chest roentgenograms revealed increasing confluence of the miliary lesions and concomitantly the patient began to note dyspnea at rest. Potassium iodide and ethyl vanillate therapy were instituted but on the 26th hospital day the patient expired.

Post mortem examination revealed normal peritoneal and pleural surfaces. The lungs were heavier than normal and showed many miliary nodules through all areas of the parenchyma. There was no evidence of a larger primary lesion. The bronchial nodes were slightly enlarged. The spleen was slightly enlarged and had numerous yellowish-white irregular nodules beneath the capsule in the parenchyma. Microscopic studies revealed miliary necrotizing nodules throughout all sections of the lung, these containing many spherules of *C. immitis* (figure 8). The spleen contained several of these granulomata (figure 9) and the heart and adrenal glands also showed at least one lesion. Several



Fig. 7. Case 2. Multiple nodular and pustular lesions of face and forehead.

areas of inflammation were noted in the kidney (figure 10) and organisms were noted in casts in the renal tubules. Bone marrow and lymph nodes sections showed abscesses containing *C. immitis.*

Comment

In contradistinction to case 1 this represents one of disseminated coccidioidomycosis with such a rapidly fatal course that the lesions characteristic of the chronic phase did not have time to present themselves. Diagnosis was established premortem by aspiration and examination of the pus from a skin lesion. This patient was originally admitted to the tuberculosis service because the x-ray appearance of the lungs suggested miliary tuberculosis. It is interesting that the patient did not contract the disease until after ten years residence in the endemic area. The rapidly fatal course is much more common in the dark skinned races in which the rate of miliary dissemination is much greater than in the white race.

Discussion

Individuals in the Pacific Northwest frequently travel to and through the endemic areas of coccidioidomycosis remaining there long enough to acquire the disease in incubational form. They later develop clinical symptoms which are ascribed to acute upper respiratory infection. When pulmonary symptoms predominate it is usually termed atypical pneumonitis. Later in life a pulmonary nodule may be found on routine roentgenogram and the coccidioidin skin test is then found to be positive, thus establishing the diagnosis in retrospect. This situation is not unusual and leads to no difficulties.

In .05 to .2 per cent of all cases of primary coccidioidomycosis, and in up to 1 per cent of cases in which patients are symptomatic or have pulmonary infiltrations, dissemination occurs. In the past, it is conceivable that in non-endemic areas, such as the Pacific Northwest, the diagnosis of disseminated coccidioidomycosis may have been overlooked completely. During the primary phase of the disease the diagnosis may

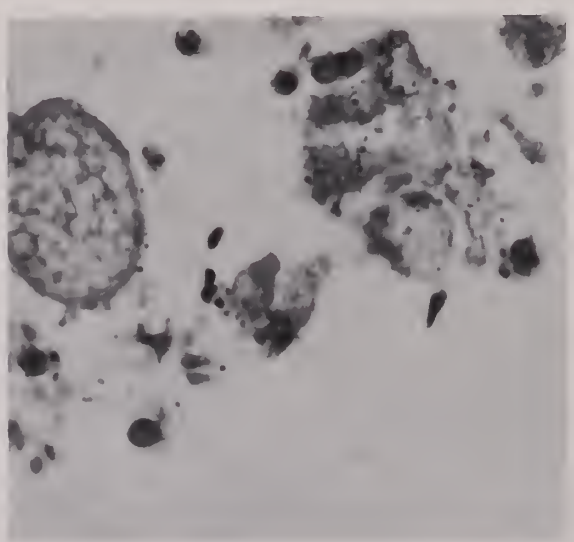


Fig. 8. Case 2. Spherule with endosphores in lung parenchyma, x-300.

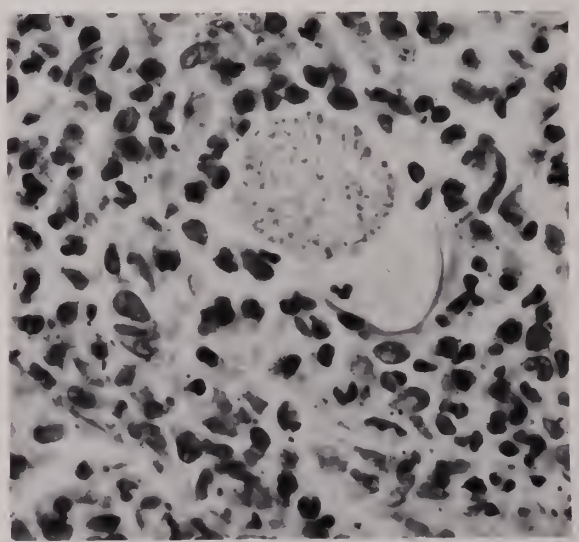


Fig. 9. Case 2. Spleen, x-300. Endosphores of *C. immitis* have ruptured and lie free.

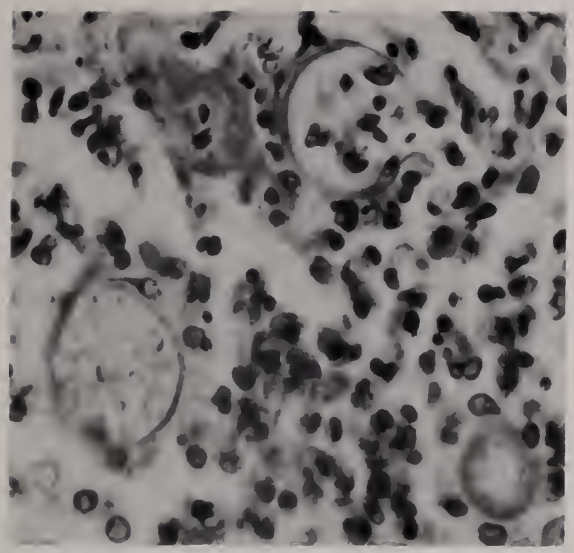


Fig. 10. Case 2. Kidney, x-300. Several spherules are seen, one with endosphores.

be difficult, especially in those individuals who have left the endemic area and in whom the history of a primary infection may be difficult to elicit or in whom there is failure to correlate the previous residence with the present condition. One should not be misguided by a negative skin test in cases of dissemination because in these individuals the skin test is usually negative while the complement fixation is usually positive. In fact, in those primary cases in which a positive skin test becomes negative and the complement fixation test becomes positive or increases in titer, dissemination is probably occurring. Where the dissemination is extremely acute, as in case 2, the usual diagnosis considered is miliary tuberculosis until development of extrapulmonary foci from which material can be secured for smear and culture. In the chronic disseminated form, such as case 1, where soft tissues and joints are involved, the diagnoses commonly considered are tuberculosis, blastomycosis and pyogenic abscess.

The mortality in all disseminated cases, acute and chronic, is approximately 50 per cent. Up to the present time no really satisfactory therapy for coccidioidomycosis has become available. Many preparations have been used in treatment, such as: stilbamidine and its derivatives, amphoterin-B, ethyl vanillate, saturated solution of potassium iodide, actidione, candicidin and the various antibiotics; however, none of these has had a consistently beneficial effect. As a consquence, therefore, only supportive care can be offered the patient.

Summary

Two cases of disseminated coccidioidomycosis occurring in Oregon are presented: one of chronic nature involving the skin, joints and subcutaneous tissues and the other of an acute fulminating nature. Occurrence of the disease in this geographical area is considered unusual enough to warrant its reporting.•

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Primary Carcinoma of the Third Portion of the Duodenum

Report of a Case

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The case to be reported here represents the only experience with primary carcinoma of the duodenum, in the past fifteen years, in a general hospital of 225 beds with 9,000 plus yearly admissions. It is also the only personal experience with this type of tumor in our office with two surgeons having a combined surgical experience of 38 years. This serves to emphasize the fact that duodenal cancer is a rare lesion.

Incidence of primary carcinoma of the duodenum is established at 0.035 per cent in autopsy studies, with 18 per cent of these being in the infrapapillary portion, 60 per cent in the peripapillary and 22 per cent in the suprapapillary areas. Because of the rarity of this lesion, carcinoma of the duodenum is usually not considered in differential diagnosis in a patient with abdominal complaints. McLean writes that it is surprising how often these patients have a long history of digestive complaints and that their history suggests the type of person who is relegated to the "chronics" by being put on a shelf with vari-colored pills.[1]

This case is being reported because: 1. it will add another case of a rare tumor to the literature, 2. it was possible to resect the lesion and perform an end to end anastomosis, and, 3. it points out the occasional fallacy in accepting obvious disease as the explanation of abdominal complaints.

CASE REPORT

A 68 year old housewife had been bothered with what she called gall bladder trouble for a period of 10 years. Her difficulty began insidiously with vague complaints of indigestion and was climaxed by an acute attack of gall bladder colic ten years ago. At that time her physician had an oral cholecystogram made and she was advised to have a cholecystectomy because her x-rays showed "a bad gall bladder." The patient refused surgery and was placed on a fat poor diet with which she got along fairly well until six months prior to being seen in our office. During the summer she had frequent attacks of bloating with vomiting and belching. This was associated with a burning discomfort just to the right of the mid-epigastric region. These attacks were initiated chiefly by meat or fish and most particularly by halibut. There was no subscapular pain and no colic. During an attack of pain and vomiting she consulted another physician who repeated the cholecystogram and told the patient again that she had a "very bad gall bladder" which should have been removed ten years ago and certainly should be removed now. She again refused surgical intervention and asked for a diet. She was given a gall bladder diet but discovered that even foods on her diet caused distress and did not reduce the number or severity of the attacks described above.

Four months after her last cholecystogram she had lost twenty pounds and she felt too weak to venture outside the house by herself.

There were no past illnesses other than an attack of rheumatism 30 years previously and an appendectomy done at age 25.

Physical examination showed a pale 68 year old female who appeared to be comfortable. Her weight was 153 compared to a normal weight of 175. The blood pressure was 160/80 with a pulse of 90. General examination showed nothing unusual; she was edentulous and there was a scar in the right lower quadrant of the abdomen from her appendectomy. Other findings of significance were limited to the abdomen where tenderness was noted over the gall bladder area at which point a firm mass was felt. It moved with inspiration.

Blood count showed 3,360,000 red cells with 9.15 Gm. of hemoglobin. White blood cells numbered 6,350 with 46 segmented neutrophiles, 2 eosinophiles and 52 lymphocytes. Routine urinalysis was normal.

The unexplained anemia and her symptom complex impelled us to have an upper gastro-intestinal radiologic study made. The radiologist reported that the duodenum beyond the bulb was dilated and the area just proximal to the junction of the duodenum and jejunem showed definite and marked narrowing. The small bowel beyond that area showed no definite abnormality. He reported 50 per cent gastric retention at the end of four hours. The lesion was confirmed by both screen and radiographic findings (figure 1.). It was the opinion of the radiologist that in the differential diagnosis one would consider regional duodenitis, intrinsic neoplasm and small bowel invasion from an extrinsic neoplasm which would most likely be pancreatic. He suggested that the overhanging edges might be regarded as evidence against an inflammatory process and that he had seen carcinoma of the duodenal bulb but had never seen carcinoma at

the location under question. He diagnosed an unquestioned lesion of the distal duodenum and stated that if one saw an annular lesion in the colon such as was demonstrated here that there would be no question of interpreting it as representing a carcinoma.

Surgical exploration was advised and after preoperative blood transfusion the exploration was carried out under pentothal induction and cyclopropane anaesthesia.

A long transverse incision was made above the umbilicus extending over into the left side dividing the recti. The gall bladder was thick walled, distended with white bile with a large stone wedged in the pelvis of the gall bladder. The common duct showed compensatory enlargement but no stones could be felt in it. The liver was grossly normal. In the duodenum, just proximal to the duodeno-jejunal angle, there was a firm hard tumor surrounded by hard metastatic nodes. There were palpable aortic nodes above the region of the duodenum but these were not explored. The stomach and remainder of the gastrointestinal tract were not unusual. The pelvic organs felt normal. After exploration, the transverse colon was lifted up and the duodeno-jejunal angle freed. The mass of tumor tissue was gradually dissected free from retroperitoneal tissues. Several fair sized tributaries of the superior mesenteric vein were ligated close to this large vein. The superior mesenteric vessels were retracted to the right and the duodenum then completely mobilized to a point proximal to the tumor. The bowel was divided and the specimen removed. An end to end anastomosis was then made between the divided jejunum and the proximal end of the duodenum using an outer row of mattress silk sutures and an inner row of chromic gut using the Connell type of stitch. A plain Penrose drain was placed under the duodenal curve and brought out at the right end of the incision. The gall bladder was then removed after separately clamping, cutting and ligating the cystic artery and cystic duct. One piece of gelfoam was placed in the gall bladder fossa to control oozing. A plain Penrose drain was brought out at the right end of the incision from the foramen of Winslow. The incision was then closed with chromic catgut in the peritoneum, interrupted cotton in the fascia and dermal suture in the skin. The immediate postoperative condition was good despite a substantial amount of bleeding during the operation which required the use of three units of blood during the procedure. Total operating time was four hours.

The pathologist reported "a specimen (Fig. 2) consisting of small bowel measuring 15 cm. in length. About 1 cm. from one end of the severed segment of bowel is an ulcerated constricting lesion which has involved the bowel for a length of 3.5 cm. along its lumen. Cut surface shows grey, yellowish stippled tumor tissue which has invaded through the wall of the bowel and into the adjacent tissues. In the adjacent tissues it is found in the form of several nodules measuring up to 2.5 by 1 cm. Also received on this case is the gall bladder which is 7 cm. in length and 4 cm. in diameter. There are tags of adhesions over the surface and the wall is quite fibrous and thickened. The lumen contains some white cloudy bile and a solitary gall stone impacted in the cystic duct end of the organ. Microscopically the tumor in the duodenum is made up of rather markedly anaplastic epithelial cells showing very little tendency to gland formation and in some areas there appears to be squamous metaplasia. The tumor is seen developing from the mucosa of the duodenum and appears to grow straight down through the muscle bundles of the wall and spread out in the lymphatics of the subserosa and mesenteric tissues. The individual tumor cells are large and have relatively large pleomorphic and irregularly staining nuclei along with atypical mitotic figures. The tumor appears to be only moderately vascular on the side towards the lumen. However, there evidently was some bleeding into the lumen in a minor degree. The tumor in the lymph nodes appears a little more differentiated than that of the primary lesion and histologically is not unlike that of a metastasis from a carcinoma primary elsewhere in the bowel. The gall bladder wall is almost completely obliterated and replaced by scar tissue which contains a moderate round cell exudate. A small piece of liver tissue included in the section shows chronic



Fig. 1. Upper gastrointestinal radiologic study showed dilated duodenum and 50 per cent retention after four hours. Lesion was just proximal to junction of the duodenum and jejunum.

focal hepatitis. The pathologic diagnosis is adenocarcinoma, primary in the duodenum, grade II plus malignancy, with extension to regional lymph nodes. Chronic exudative and productive cholecystitis with cholelithiasis."

The postoperative course was marked by low grade fever and several bouts of nausea with vomiting which necessitated use of the Levine tube with continuous gastric suction. Drainage from the wound persisted for 15 days postoperatively. At the date of discharge, 23 days postoperatively, the patient was feeling well and was tolerating and enjoying a soft diet. She was seen two months after her resection at which time she had no complaints and was gaining weight. Two months later, however, she was hospitalized for a few days because of nausea and vomiting. An upper gastrointestinal examination showed duodenal narrowing. The patient tolerated liquids fairly well and some thought was given to performing a gastroenterostomy. However, she rapidly became worse and expired 6 months and two weeks after her operation. There was a prolonged terminal course of complete starvation with gradual emaciation. The duration of this terminal event made us wonder if starvation had not actually inhibited the cancer.

Autopsy revealed retroperitoneal duodenal obstruction by a large mass of tumor which extended along the para-aortic lymph nodes. There was tumor in nodules throughout the mesentery and on the parietal peritoneum. The liver had numerous foci of metastases including one large necrotic area 10 cm. in diameter. There was terminal hypostatic bronchopneumonia and a poor nutritional status as evidenced by emaciation and fatty metamorphosis of the liver.

There is considerable discussion in the literature with reference to the type of operation that



Fig. 2. Pathologic specimen of small bowel measuring 15 cm. in length shows ulcerated constricting lesion about 1 cm. from end of severed segment of bowel. The lesion involves the bowel for a length of 3.5 cm. along its lumen.

should be employed for malignant lesions of the duodenum.[2] In the first and second portions, resection, if done, must include removal of the head of the pancreas. Perhaps these lesions are best by-passed by palliative gastrojejunostomy. Brunschwig and Tiholiz suggest that "as in any surgical attack upon a neoplasm, each patient presents individual problems which must be evaluated to get the best operation."[3] Dixon *et al.* point out that extension into local nodes occurs early and that there is a long latent period before the lesion extends into distant sites such as the liver and lungs.[4] They also indicate that the prognosis for lesions in the duodenum is better than for lesions of the jejunem or ileum. The experience in this case did not bear this out and in retrospect perhaps a palliative gastroenterostomy would have been as valuable as the extensive resection. Gastroenterostomy might have well been done in addition to the resection to avoid the prolonged course of starvation.

Summary

A case of primary carcinoma of the third portion of the duodenum with coincidental gall bladder disease is reported. The surgical procedure performed in this case was resection with primary end to end anastomosis. Immediate surgical recovery was satisfactory but residual, recurring cancer caused death in six months. •

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The Practicing Physician, The Patient and Cardiac Surgery

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The careful physician can make accurate diagnosis of heart lesions using office procedures alone. His further responsibility to the patient includes explanation of the role of others and results to be expected, phrased to preserve the patient's emotional balance.

What should patients be told when facing possible cardiac surgery? The following is an attempt to help the practicing physician answer this question. The patient's education in this field via friends, lay articles, and television is incomplete and often erroneous. The family physician may turn to his journals replete with technical details concerning each operation and the statistical evaluation of its success but, to date, little has been said as to how the problem should be presented. Saying too little and letting biased lay opinion prevail is as harmful as saying too much which may have to be retracted later.

The following is not the scientific analysis of a number of cases, but rather the result of experiences accumulated by an internist standing midway between the referring physician and the cardiac surgeon. Of 256 patients seen for an opinion concerning possible surgery, 124 had rheumatic heart disease, 74 had congenital heart disease, 25 had other cardiovascular anomalies, and 33 had no evidence of organic disorders but purely functional disease. Of this total group, 85 have been operated upon and followed from one to seven years after surgery.

Accuracy of Diagnosis

One of the patient's first concerns is with accuracy of diagnosis. In these days of live surgery of the heart, colored illustrations, and the aura surrounding any academic title, clinic, center or foundation, a natural reaction may well be that this is a complicated problem fit only for the specialist. Nothing could be less accurate in cases referred by other physicians for an opinion concerning the indications for surgery. However, in contrast, a small number of patients presented themselves independently, and sometimes against the advice of their family physicians, often misdiagnosed or maladvised.

The referring physician, be he general practitioner, surgeon, internist, orthopedist, or otolaryngologist, was correct in nine cases out of ten. This is a gratifying number when one considers that such referring diagnoses as Eisenmenger's complex, tetralogy of Fallot, patent auricular or patent ventricular septa had all been entertained following the use of history, physical examination, fluoroscopy or x-ray—office procedures which are available to all. No consistent reason for the errors in the other 10 per cent could be found.

Today's referring physician is well trained as to the differential diagnosis between functional and organic murmur. However, murmur hypnosis is still prevalent and failure to pay attention to the heart sounds is frequent. For instance, a loud second pulmonic sound following a systolic murmur in the same region may be compatible with patent auricular septum, whereas a diminished or absent sound in the same location with an identical murmur may lead one to suspect pulmonic stenosis.

Such a differential diagnosis was academic a few years ago, but today the latter condition is of importance as it is readily curable. Furthermore, a universally acceptable procedure for septal closure will soon be adopted. Errors among physicians who failed to recommend consultations were of diagnostic omission—such as failure to seek the cause of cerebrovascular accident in young adults, hence missing mitral stenosis, or calling its symptoms "chronic asthma," or labeling the ominous syncope associated with aortic stenosis as "a fainting spell." In all such

cases, physical signs, such as sounds, murmurs, and thrills, were present for those physicians who wished to avail themselves thereof. The instances above are fortunately rare and far between.

In spite of the probability of making an accurate diagnosis by office procedures, it may be well for the family physician not to commit himself unequivocally as to the precise lesion and need for surgery until appropriate special tests have been completed. When a family with their ailing first born have been led to believe by their family physician that a cure is in sight, the consultant has a difficult time explaining that no help is available because of the presence of an, as yet, unoperable lesion. On the other hand, it is unwise to refer the patient without even mentioning the word surgery. Unless such an idea is gradually broached, it is often so new, so startling, and so shattering, that patient and family alike recoil, wasting precious time for reconsideration.

Need for Complicated Studies

Catheterization of the right half of the heart is of use in congenital heart disease, where a credible impression may be reached before catheterization, but clearly demonstrable diagnostic proof is needed before the patient is submitted to the risks, pain, and expenses of major cardiac surgery. In acquired heart lesions, physical signs, supported by electrocardiogram and x-ray findings, of pure mitral or aortic stenosis should be sufficient to establish the diagnosis. They are so reliable that, for example, careful attention to history and physical signs will enable one to estimate correctly the size of a mitral stenotic valve to the nearest 0.5 cm. sq. In impure lesions, right or left heart catheterization may be necessary. However, the data obtained in this fashion are not the *sine qua non*, but must be integrated with other findings. It is a fallacy to tell a patient "we will do a cardiac catheterization to see if you need surgery." Such a statement is an avowal of insecurity in the art of history taking and physical diagnosis.

The practicing physician who has never seen a cardiac catheterization or an angiocardiography, finds it difficult to describe. It is neither as simple as "they slip a little thing into your arm vein," nor is it as damning as "they stick a tube into your heart." Three things need be said: pain is far less than that inflicted by the dentist—it is even less than that of a simple vena puncture; mask and gown will be worn by the physician to prevent an infection, not "because it is an operation"; and oxygen will be administered, not because of extreme illness, but for diagnostic reasons only. These words will immeasurably help those who try to obtain data not falsified by tachycardia, hyperventilation, and undue anxiety.

Expected Results

Results to be expected from surgery of the heart can only be based on what has been called evaluation of the effects of certain operations. However, this discipline is fraught with pitfalls. A high proportion of normal appendices soon bring disrepute to the operator; so should a high proportion of patients who fail to improve after cardiac surgery. Alas, functional capacity is not a tissue sent to the pathologist, and the results of surgery are frequently laid at the practicing physician's doorstep. As he usually has few cases of such nature, a false impression may be left either of great success or of dismal failure. Indeed, the cardiac surgeon will perform his brilliant foray into the patient's cardiovascular system, but only briefly, and the family physician who has ministered to the patient before the operation will still have the bulk of his care when the latter is returned from the specialist.

To date, the results of cardiac surgery from larger centers have been obtained by interpreting the patient's subjective postoperative symptoms or performing the difficult task of comparative cardiac catheterization before and after surgery. In others, mere questionnaires or check lists have been mailed and their results tabulated. The surgeon frequently, and the practicing physician occasionally, fail to appreciate the psychic benefits of "an operation on the heart" and of "the big scar where I had 18 stitches taken to close me up." Furthermore, the patient who has purchased an expensive and glamorous service is not going to look for flaws. How many sports car enthusiasts would criticize their latest two or three thousand dollar purchase?

Subjective improvement is not always equal to the mass appeal and glamour of surgery of the heart. Betterment hinges on the aims of repair. The cure achieved by ligation of a patent ductus, or the resection of a coarctation, usually gives the patient no subjective changes. In other types of surgery, we do not hope to correct a defect completely, but merely to help, as in mitral,

aortic, or pulmonic valvular procedures. These latter operations do not cure heart disease but only alleviate the altered hemodynamics.

It should be explained to the patient that in these cases we hope to improve their function so that they can do more with fewer symptoms and resume a more nearly normal life. Our goals are to enable them to earn happily a useful living, or to perform housework contentedly and comfortably. Furthermore, subjective improvements following commissurotomies may take some 3 to 18 months to become manifest. Such surgery is not akin to tonsillectomies where the offending organ is removed and the patient discharged and forgotten a few weeks after the operation. In spite of successful repair, digitalis and a low salt diet may still be needed thereafter.

Finally, lay publications have not impressed patients with the fact that heart surgery is only specific for a few purposes; many must be turned away since no suitable method has been discovered to cure their ills. However, they should not be discouraged and given bleak prognoses. It can always be stated that though nothing specific can be done today, the near future holds great promises. The revolutionary changes in the rapidly moving fields of cardiac surgery are akin to the period of some 30 years ago when the outlook for diabetics was changed overnight with the discovery of insulin.

Risks

It is taken for granted that there are risks attendant to surgery of the heart. The greatest gains are usually achieved in patients who are the sickest, but the danger is also the highest in this type. However, if the operation can be performed before total disability and bedfastness ensue, mortality statistics are greatly improved. It has been found advisable to reassure and yet be frank; the physician may say, for instance, "there are risks to everything, even crossing the street, but if my house were burning on the other side of the street, I would run through heavy traffic, in spite of heavy risks, to help put out the fire."

Some patients may be advised to have surgery performed, or at least important preliminary studies, and refuse to do so. Why do they? The majority have been in and out of congestive failure for a long time and, disappointed by the lack of improvement, have peregrinated from physician to physician where they have been given a variety of conflicting opinions. Many recall the recent past when it was stated of rheumatic valvular disease and congestive failure that "nothing more can be done about it." The suggestion that something further might be done is indeed interesting, but merely another item to be added to their long catalogue of opinions. Others wish to have the guarantee of a cure and finally, a few may have been terrified by the inadvertent opinion of friends, the lay press, and, in some cases, even by doctors, as to the pain and danger of a preliminary work-up.

Costs

Patients come to a physician's office with three questions on their minds: 1. What have I got? 2. Can it be fixed? 3. How much will it cost? The total hospital expenses in uncomplicated cases with which I am familiar are usually in the range of $750. This figure includes the cost of a private room, oxygen, and a special nurse; her presence is invaluable in encouraging the simple acts of turning and coughing for the first 48 to 72 hours. In addition, x-rays, electrocardiograms, and occasionally electrolyte profiles may be necessary. Considerable variation is found in the surgeon's fee. The total cost is indeed large, but life is certainly worth the price of a good second car. It can also be stated that without the investment of good health, a wage-earning patient could not be earning his living, a fabulous return on the original investment.

Summary

The practicing physician who feels he might have a candidate for cardiac surgery should inform the patient of these facts before referring the patient:

1. "You have a heart condition which perhaps might be helped by surgery."
2. "You may need further diagnostic tests; they are not at all painful and not highly dangerous."
3. "Surgery will not be recommended unless we have a reasonable hope of improvement, at least enough to allow you to earn a living and lead a contented life."
4. "There are risks to surgery, but based on the outcome of unoperable cases similar to yours, we are certain that you will not improve, but rather get worse."
5. "The total cost of surgery of the heart is not prohibitive, and usually equal to surgery for lung cancer." •

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A New Oral Antipruritic

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Continuous investigations during the past three or four years have revealed the outstanding clinical utility of phenothiazine derivatives. For example, chlorpromazine and prochlorperazine, both of which have potent central activity, have been widely used in the treatment of mental and emotional disorders; promethazine and similar phenothiazines with peripheral activity have been used successfully in the treatment of various allergic conditions.

Trimeprazine (Temaril*), a new phenothiazine, possesses demonstrable central and peripheral activity. Reports of preliminary clinical investigations indicate that trimeprazine, when taken orally, exerts a potent and seemingly specific antipruritic effect in such unrelated conditions as biliary cirrhosis, poison ivy, and neurodermatitis.[1,2] These reports also indicate that trimeprazine can be administered in small daily doses, and that, except for occasional mild drowsiness, the compound does not produce serious side effects. One group of investigators found that trimeprazine, when used in treating pruritis associated with various dermatologic conditions, often permitted the reduction of concomitant therapy, especially steroid therapy.[1]

For clinical use, trimeprazine is prepared as the tartrate salt, the structural formula of which is shown in figure 1. It is a white crystalline

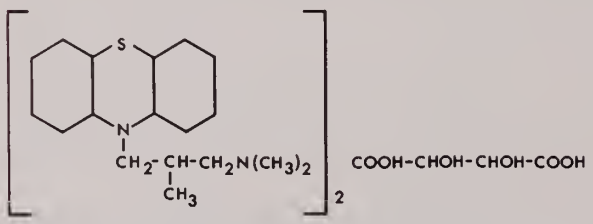


Fig. 1. Structure of the tartrate salt of dl-10-(3-dimethylamino-2-methylpropyl)-phenothiazine.

powder soluble in water, menthanol, and chloroform. It is practically insoluble in ether and benzene.

Because of previous reports, and because of lack of an orally effective agent specific for pruritus, it seemed worthwhile to undertake an evaluation of trimeprazine in a private dermatologic practice to elucidate further, if possible, its antipruritic effect.

*(dl-10-(3-dimethylamino-2-methylpropyl)-phenothiazine. Supplied for investigational use by Smith Kline and French Laboratories.

Material and Method

Ninety patients, in whom severe pruritus was a distressing and complicating factor in acute and chronic dermatoses and systemic diseases, were treated with trimeprazine. A list of the dermatoses and systemic diseases can be found in table 1. The patients selected for the evaluation were chiefly those in whom pruritus had been completely or partially refractory to other forms of therapy, such as topical or systemic applications of steroids, antihistamines, sedatives, and tranquilizers. They ranged in age from 1 year to 75 years; 68 were female, and 22 were male. All were ambulatory but two, who required hospitalization.

Diagnostic procedures were completed on all patients being seen the first time. If familial and personal histories and physical examinations had not been completed recently for patients who were currently under care, these diagnostic procedures were rechecked. All medication was stopped for at least one week, and in some cases longer, prior to placing the patients on trimeprazine. Concomitant therapy was limited as much as possible so that effect of the drug could be determined. In 27 patients with severe dermatoses, however, concomitant therapy was considered desirable, and consisted of topically or systemically administered medication. Patients were seen in the office once a week. The evaluation lasted one year.

Coated tablets containing 2.5 mg. and 5.0 mg. of trimeprazine, and a syrup containing 2.5 mg. of the drug per 5 cc. (one teaspoonful) were used exclusively throughout the evaluation. Initial daily doses of the drug depended on the severity and chronicity of itching, and varied from 2.5 mg. in acute conditions to 25.0 mg. in the two patients who required hospitalization. The usual starting dose was 2.5 mg. taken three or four times a day, usually before meals and before retiring. Once the severe phase of itching was controlled, the total daily maintenance dose, if needed, was reduced to 5.0 mg. Children under 12 years of age were usually started and maintained on a total daily dose of 5.0 mg. When

nighttime itching was severe and interrupted the patient's sleep, a dose larger than the usual daytime dose was taken before retiring. The duration of therapy varied greatly. In acute cases, therapy lasted anywhere from several days to several weeks. In the more severe chronic cases, patients received the drug daily for several months. Two patients have received 5.0 mg. of trimeprazine daily for over nine months with no ill effects whatsoever.

Repeated physical examinations were made on all patients, and complete blood counts and urinalyses were conducted routinely on 33 patients to determine the effect of trimeprazine on blood forming mechanisms and hepatic function. Repeated laboratory tests were conducted on the hospitalized patients. Since all the results of the laboratory tests were negative, irrespective of the duration of therapy, these tests were discontinued. Physical examination of all patients for signs and symptoms of untoward reactions was continued throughout the evaluation.

Results

Because of the subjective nature of itching, and the variability between antipruritic responses, the results reported by the patients were screened by the investigator and, together with his observations, were grouped into two categories, "satisfactory" and "unsatisfactory." It was felt that such a procedure would reduce the variability between results, thereby giving them greater reliability. Satisfactory results included only those results that indicated a complete and lasting relief of pruritis. Results considered unsatisfactory were those indicating that the relief of pruritus was either complete, but intermittent, or consistently incomplete; patients experiencing side effects, regardless of their severity or duration, were also included in this group.

Results of therapy are shown in table 1. Based on the above criteria, 68 (75.5 per cent) of the patients experienced satisfactory (complete relief of pruritus) results, and 22 (24.5 per cent) obtained unsatisfactory results. The latter group included 14 patients who had obtained complete relief of itching, but who had also experienced side effects; 7 patients who obtained incomplete relief of pruritus; and 1 patient who experienced a recurrence of pruritus due to exacerbation of atopic dermatitis.

The onset of trimeprazine's antipruritic effect was reported to occur, generally, within one to three hours after the first dose of the drug had been taken. Naturally, there was some variation between patients depending on age and weight.

Table 1. Results of Trimeprazine therapy.

Diagnosis	Patients	Relief of Itching: Satisfactory	Relief of Itching: Unsatisfactory
Neurodermatitis	35	23	12
Atopic dermatitis	19	17	2
Contact dermatitis	6	5	1
Psoriasis	4	2	2
Pruritus ani/vulvae	4	3	1
Herpes zoster	3	3	0
Varicella	2	1	1
Urticaria (chronic)	2	1	1
Infectious eczematoid dermatitis	1	1	0
Prupruic eruptions	2	1	1
Idiopathic pruritus	2	2	0
Polycthemia rubra vera	1	1	0
Dermatitis hypostatica	2	2	0
Dermatitis medicamentosa	1	0	1
Pruritic seborrheic dermititis	1	1	0
Measles	1	1	0
Intertrigo	1	1	0
Acute pompholyx	2	2	0
Totals	90	68 (75.5%)	22 (24.5%)

Observations regarding the effect of trimeprazine on nighttime itching were also made, since it was a problem for 81 of the patients. Sixty-seven (83 per cent) of the patients obtained complete relief of nighttime itching and were able to sleep without interruption, often for the first time in months. The remaining 14 (17 per cent) patients obtained significant though not complete relief of nighttime itching while they were receiving trimeprazine.

As might be expected, the direct effect—reduced scratching or rubbing of affected areas—resulted in improvement of skin lesions. Since the patients were seen at frequent intervals, it was possible to determine the result of reduced irritation on the skin lesions of those (75) who possessed them when therapy was initiated. In 44 (59 per cent) patients complete healing of the lesions had taken place by the time they had discontinued the drug; in 20 (27 per cent) patients almost complete healing had taken place; in 4 (5 per cent) patients some evidence of healing was apparent, and in 7 (9 per cent) patients no effect on skin lesions could be detected even though these patients were no longer troubled by itching.

The medication was continued at a lower maintenance dose as a prophylactic measure after the particular condition being treated had cleared. In this regard, trimeprazine was found most valuable in preventing the usually anticipated pattern of recurrences in chronic, recrudescent diseases. By thus controlling pruritus, the aggravating itch-scratch cycle could be obviated in many instances.

The antipruritic response to trimeprazine ex-

perienced by 83 patients was compared to that obtained while the patients were receiving previous medication or therapy. Results of this comparison are shown in table 2. In all but 5

Table 2. Antipruritic response of potients to trimeprazine ond to previous theropy.

Previous Medication	Potients	Response to Trimeprozine Superior	Some	Worse
Antihistamines	36	35	1	0
Sedatives	16	16	0	0
Tranquilizers	16	14	2	0
Allergic desensitization	3	3	0	0
Steroids	8	6	2	0
Other	4	4	0	0
Totals	83	78	5	0

patients, the response derived from the administration of trimeprazine was superior to that obtained with previous medication.

Side effects were reported by 14 patients. Lethargy, nightmares, or a non-specific skin eruption was reported by one patient each. The latter effect was transient and was not related to the photo-sensitivity type reaction sometimes seen with the administration of other phenothiazines. Drowsiness, the most frequent side effect noted, was reported by 11 patients. In 6 patients drowsiness was mild and transient; in 3 it was moderate and transient, and in 2 it was severe. The medication was discontinued in both of the latter patients. Usually, drowsiness was reported during the first few days of therapy but by the time the patients had taken the drug for a week this side effect had usually disappeared. The patient who reported nightmares experienced this effect only once, and it was questionable whether it was related to the administration of the drug. No serious side effects were reported.

Comment

Because of the variability of pruritus associated with specific dermatologic conditions, and the extreme variability from patient to patient, it was difficult, at the outset, to standardize the daily dose of trimeprazine. As experience with the drug accumulated, however, average daily doses could be ascertained with little difficulty. Generally, the initial dose consisted of one 2.5 mg. tablet taken two or three times a day. As the study progressed, it was evident that drowsiness, which was only a mild side effect, could be largely eliminated for most patients by having them take their dose of trimeprazine just prior to meals. The dose taken before retiring was usually twice the daytime dose because of increased nighttime itching. Even though nighttime doses were sometimes as high as 20 mg., lethargic effects the following morning were reported by only one patient. It has been my experience that starting with the lower dose has distinct advantages since patients are more cooperative if the dose has to be increased rather than decreased. Then too, experience has shown that patients who tolerate the lower dose usually have no difficulty in tolerating higher doses.

Moderate hypotensive reactions were observed occasionally in patients who were receiving large daily doses (20 mg. or more) of trimeprazine and antihypertensive drugs. Although it is rare that doses of this magnitude are required, it should be pointed out that, in patients receiving antihypertensive drugs, particularly sympatholytic drugs, the initial dose of trimeprazine should be low and should be increased slowly.

One of the most gratifying results to be uncovered in this evaluation was the lack of tolerance to the therapeutic effect that may develop when a drug is used for prolonged periods of time. Several patients who received trimeprazine for nine months or more continued to experience the same antipruritic effect as they did when they were first given the preparation. This effect is, of course, in direct contradistinction to effects produced by drugs such as phenobarbital and antihistamines. One other effect that was not observed during this evaluation was the so-called "therapeutic paradox"—i.e., increased itching or aggravation of symptoms as a result of therapy.

Summary

Trimeprazine, a new oral antipruritic, was evaluated during the past year in a series of 90 patients who experienced pruritis as a complicating factor in acute and chronic dermatologic and systemic disorders. Results of the evaluation indicate that trimeprazine is an effective oral antipruritic; that it can be administered in small daily doses; that it produces no serious untoward effects, even upon prolonged administration; and that it permits a reduction in concomitant therapy. Results also indicate that side effects are minimal and that they are generally present as mild drowsiness. Therapeutic relief could often be enhanced by adjusting the initial doses upward as required to manage adequately the nature and severity of the problem at hand. •

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Chlorothiazide (Diuril) Treatment of Edema

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Edema is one of the most common manifestations of heart disease, cirrhosis, or nephrosis, and satisfactory management of edema in the ambulatory patient is often difficult to achieve. Heretofore, successful therapy has required rigid restriction of sodium intake to the point of enforcing unpalatable diets, and frequent use of diuretics to promote renal excretion of sodium. Effective diuresis has usually required frequent parenteral injections of mercurials which have not been entirely free from discomfort, inconvenience, and untoward reactions for these patients. Thus, the recent announcement of an effective oral diuretic, chlorothiazide,[1] with potent saluretic effects, has been received with more than usual interest.

Chlorothiazide (Diuril) is a non-mercurial compound, related to the sulfonamides, possessing a carbonic-anhydrase inhibitory effect greater than that of sulfadiazine, but less than that of acetazolamide (Diamox). Previous studies have shown that it exerts its major diuretic effect, however, by other mechanisms which are as yet unidentified.[2] In doses of 2.0 Gm. per day it has been shown to effect a prompt diuresis of water, sodium, chloride, and potassium, with reduction of edema, and clinical improvement in congestive heart failure and other edema states.[3] Dosages as low as 0.5 Gm. per day have been effective, and there has been no additional benefit, in general, from dosages of more than 2.0 Gm. per day. Reduction of blood pressure has been noted in some hypertensive subjects who were given chlorothiazide.[4,5] Mechanism of this effect is not clear, but may be related to reduction in body sodium and decrease in circulating blood volume.

It is our purpose in this report to summarize the clinical experience derived from use of this new diuretic in 57 patients at King County Hospital who presented many of the common problems in edema management. None were rigidly controlled with respect to sodium intake, although most had been enjoined to follow the regimen of a salt-free diet. These clinical trials were designed to determine, a) effects of sustained therapy in varying dosages and, b) comparative effectiveness of 2.0 Gm. doses of chlorothiazide, and 2.0 ml. injections of a mercurial on a twice a week schedule. Observations with respect to both control of edema and incidence of untoward effects were carried out.

Effects of Sustained Chlorothiazide Therapy

Initial studies with chlorothiazide alone were carried out on 33 patients in the outpatient clinics and the inpatient wards of King County Hospital. Of these, 2 were cirrhotics with ascites, 2 had edema in association with the nephrotic syndrome, and 29 had congestive heart failure. Cardiac diagnoses were as follows: arteriosclerotic heart disease 11 cases; hypertensive cardiovascular disease 3; cor pulmonale 1; rheumatic heart disease 11; syphilitic heart disease 1; undiagnosed heart disease 2. Of the entire group of 33 patients, severity of edema varied from no grossly visible edema in 10 to minimal edema in 7, moderate edema in 8 and massive edema in 8.

Our most frequently used dosage in this group was 2.0 Gm. of chlorothiazide daily, given in

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four divided doses of 0.5 Gm. each. Five cases were excluded from the total of 33 because of lack of patient cooperation with the study; thus inadequate control of therapy, missed weighing, or doubt as to reliability of these five patients in taking the drug, left 28 cases in which satisfactory observations were recorded. The pertinent results were as follows:

1. Inpatients had an average weight loss of 0.5 pound during the 24-hour control period prior to specific therapy. Diuresis of edema and loss of body weight bore a roughly linear relationship to drug dosage. Thus, during the first 24 hours of therapy, average weight loss was 2.0 pounds on 2.0 Gm. of chlorothiazide daily, while weight loss on the second day of sustained therapy increased by another 2.7 pounds, to an average total of 4.7 pounds. When dosage was decreased to 0.75 Gm. daily, weight loss fell by an average of 1.3 pounds during the first 24 hours of therapy.

2. Observations on sodium excretion were made in 12 of these 28 cases during treatment with chlorothiazide. Average sodium excretion was 100 mEq. in 24 hours with dosage of 0.75 Gm. per day for 2 to 3-day periods, while sodium excretion averaged 189 mEq. per day when dosage was increased to 2.0 Gm. per day.

3. Three of 28 patients (11 per cent) developed nausea or visual disturbances. Since these disappeared when the drug was discontinued and reappeared when therapy was resumed, they were attributed to treatment with chlorothiazide. Another patient developed both first degree AV heart block and ventricular bigeminy which were attributed to excessive loss of potassium in a previously digitalized patient. These manifestations disappeared with supplemental oral potassium chloride therapy. Although no other definite instances of potassium depletion were noted in this group, excessive body potassium loss may occur with either large doses of chlorothiazide or with continued long-term therapy.[3] No serious or irreversible hematologic, neurologic, or other effects were observed. Drowsiness, which sometimes occurs with acetazolamide, and leg cramps or weakness, occasionally associated with mercurial diuretics, were not seen with chlorothiazide.

Comparison with a Mercurial Diuretic

A subsequent study was carried out to compare the effects of an oral dose of chlorothiazide, 2.0 Gm. per day, with the diuretic effects of an injectable mercurial diuretic. A group of 14 patients, of whom 12 were cardiac and 2 were cirrhotics with ascites, was studied in this regard. The patients were not given any specific diuretic therapy for a 48-hour period, during which time daily body weight, urine volume and total urinary sodium, potassium and chloride excretions were determined. These observations served as base line controls prior to the administration of the diuretics under study.

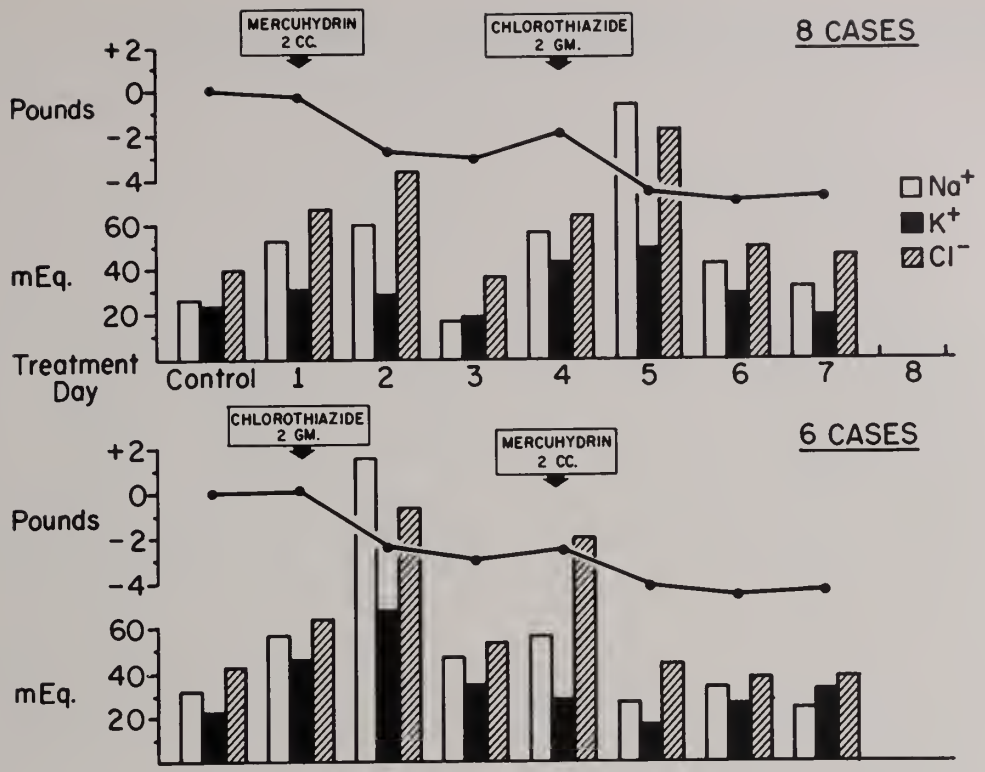
Patients were then given a 2.0 ml. intramuscular injection of meralluride (Mercuhydrin) and observed for 72 hours with the above measurements recorded. They then received 0.5 Gm. chlorothiazide four times a day for 24 hours, with similar weight and urinary studies for the subsequent 72 hours. Eight of the 14 were treated in this sequence; the remaining 6 were treated in the reverse order—i.e., chlorothiazide was followed by meralluride. Comparative data are shown in the figure. Pre-treatment electrolyte excretions in the entire group averaged 28 mEq. of sodium, 23 mEq. of potassium, and 41 mEq. of chloride per 24 hours. Meralluride elicited an average total weight loss of 2.5 pounds during the 48 hours subsequent to injection, with average daily electrolyte excretion of 102 mEq. of sodium, 52 mEq. of potassium, and 149 mEq. of chloride. Chlorothiazide produced an average 48-hour weight loss totalling 2.9 pounds when given in 2.0 Gm. dosage for a single day, and electrolyte excretion for the day following chlorothiazide averaged 187 mEq. of sodium, 55 mEq. of potassium, and 169 mEq. of chloride.

A parallel study was conducted with 9 outpatients who had cardiac edema; they were given meralluride or chlorothiazide twice weekly, and were followed for changes in body weight. Reductions in body weight in this group averaged 1.8 pounds per week when chlorothiazide, 2.0 Gm., was given twice weekly, whereas meralluride given twice weekly in a 2.0 cc. dose resulted in a net gain of 0.4 pound at the end of the week treatment. The meager responses seen in this small series of outpatients were probably due to lack of rigidly controlled sodium intake during the period of these observations.

Conclusions

The following conclusions seem warranted from these studies:

1. Chlorothiazide is a safe, effective oral



Comparison of average effects of chlorothiazide and meralluride on daily body weight and daily urinary electrolyte excretion in 14 inpatients. Note the similarities in weight loss with either diuretic; chlorothiazide elicits diuresis primarily of sodium, exceeding excretion of either potassium or chloride.

diuretic which has a low incidence of undesirable side effects that terminate when the drug is discontinued, or when supplemental potassium is administered.

2. In oral doses of 2.0 Gm. per day, chlorothiazide is as effective as 2.0 ml. of injected meralluride, and could be substituted for injected mercurial diuretics in the practical management of edema states.

3. Striking diuresis of sodium is effected by chlorothiazide, with less prominent but nonetheless significant diuresis of chloride and potassium. Meralluride elicits a diuresis primarily of chloride rather than the cations sodium and potassium.

4. Long-term therapy with chlorothiazide probably should be accompanied by potassium-rich foods or potassium therapy.

5. Our studies did not reveal any significant alteration in blood pressure with one-day chlorothiazide therapy, and no change in blood pressure was seen on sustained chlorothiazide therapy in previously normotensive patients. Too few hypertensive patients were studied to permit conclusions to be drawn on blood pressure response in this study.

6. Despite the ease of administration and relative freedom from side effects of chlorothiazide, it is a potent compound capable of eliciting profound electrolyte depletion. Its administration should be accompanied by a cautious awareness on the part of the physician of potential hazards from sodium, potassium or chloride depletion. •

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Training of Rehabilitation Personnel

Developments in the Pacific Northwest

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In this paper an effort will be made to assess present and future need for training of rehabilitation personnel. Programs and facilities to fulfill the need for training of specialists in the field of rehabilitation will be discussed. Since the limited scope of this paper does not permit a review of all educational programs of specialties participating in rehabilitation, discussion will emphasize the training of medical and closely allied rehabilitation personnel.

Present Need for Trained Rehabilitation Personnel

Expansion of rehabilitation services and facilities is, to a large extent, jeopardized by the lack of a sufficient number of trained personnel. For example, there is a great shortage of physicians who are trained in rehabilitation procedures. Only 322 physicians have been certified by the Board of Physical Medicine and Rehabilitation. We need between two and three thousand specialists in physical medicine and rehabilitation in order to provide adequate services.

The Sub-committee on Paramedical Personnel in Rehabilitation and Care of the Chronically Ill of the Office of Defense Mobilization reported that a similar shortage of physical therapists and occupational therapists exists. This shortage seems to be ever-increasing (tables 1 and 2).[1]

Table 1. Supply and need for physical therapists.

Year	Active Supply	Need for Hospitals	Total Need
1951	5,300	7,200	7,800
1952	5,800	8,020	8,960
1953	6,300	8,840	10,120
1954	6,800	9,660	11,280
1955	7,300	10,480	12,440
1956	7,800	11,300	13,600

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Future Need for Rehabilitation Personnel

Present lack of trained personnel appears even more serious when we consider the probable expansion of rehabilitation services. One of the reasons why more extensive rehabilitation services are needed every year is the continually increasing number of geriatric cases. It is estimated that by 1980 the number of people in America over 65 years of age will be approximately 22 million.[2] Relative increase in number of older people in our population is demonstrated by figures 1 and 2.[3] Distribution of the age groups in the population in 1900 is compared with that in 1950.

Table 2. Supply and need for acupational therapists.

Year	Active Supply	Need for Hospitals	Total Need
1951	2,600	4,900	5,600
1952	2,900	5,600	6,580
1953	3,200	6,300	7,560
1954	3,500	7,000	8,540
1955	3,700	7,700	9,520
1956	3,900	8,400	10,500

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In addition, technical advancements and increased industrialization have resulted in an ever-increasing number of disabling accidents. In a recent statistical survey, Bakst has estimated that the number of people suffering from long-term disabilities in the United States in 1957 was approximately 5,300,000.[4] Eighty-eight per cent of these disabilities were due to accidents; 2.2 million persons would have been in the labor force had they not been disabled. The number of rehabilitation services will have to be expanded to meet the need created by the general increase of the population in the United States. Figure 3 shows this projected increase up to 1975.[3] At this time our population will exceed 200 million.

Development of Facilities and Services

Since the physician who is charged with primary responsibility for patient care should provide for an adequate treatment program to minimize effects of disease and accident, it seems important that all physicians become acquainted with the scope and the possibilities of compre-

Read before the Pacific Regional Conference of the National Rehabilitation Association, Seattle, Wash., May 21-23, 1958.
*Professor and Executive Officer, Department of Physical Medicine and Rehabilitation, University of Washington School of Medicine, Seattle, Washington.

hensive medical care—that is, rehabilitation procedures. Then they will be able to refer to the corresponding service facilities those patients in whom they recognize the need for comprehensive care.

One step in this direction has been the introduction into medical schools of adequate training programs in physical medicine and rehabilitation. Postgraduate courses acquaint physicians already in medical practice with new procedures and methods.

The physician must also be aware of the other specialties which contribute to the over-all program of the patient and which are also necessary to help the patient to make the best possible psychologic, social and vocational adjustment. In turn, all other professional persons who have contact with the disabled or chronically ill should be aware of the help available and should refer their clients correspondingly.

Hospital administrators should be aware of the need for such facilities. Additional comprehensive rehabilitation centers must be established, and general hospitals should have adequate physical therapy and occupational therapy services. Krusen[2] concurs with the observation of the President's Commission[5] that 20 per cent of bed capacity of general hospitals should be allocated for convalescense and rehabilitation. The Hospital Council of Greater New York estimated that 25 per cent of bed capacity should be allocated for these purposes.[6]

Limited treatment facilities for outpatients can be established by joint effort of the local physicians and the community with the help of agencies concerned with rehabilitation. For the older age group the situation could be much improved by providing optimal care in the hospital. Also, physical therapy and occupational therapy facilities should be available in some of the nursing homes for those patients who need prolonged care.

In order to enlist community support the general public should have knowledge of the potentials of comprehensive medical care. Much has been accomplished in these respects, but much remains to be done in the future.

Results of a pilot program in New York for rehabilitation of disabled welfare recipients have recently demonstrated that adequate comprehensive rehabilitation care would increase the self-sufficiency of patients (table 3); reduce the number of people who have to be discharged to a nursing home (table 4); decrease appreciably

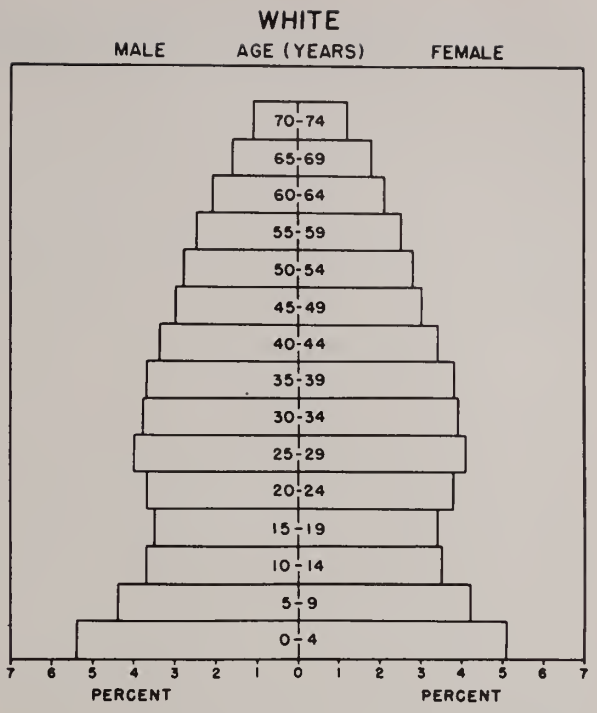


Fig. 1. Per cent distribution of the white population of the United States, by age and sex: 1950. This figure is reproduced with permission from Health and Demography, Public Health Service Publication No. 502, U. S. Department of Health, Education and Welfare, Bureau of State Services, National Office of Vital Statistics, Washington, D. C., October, 1956.

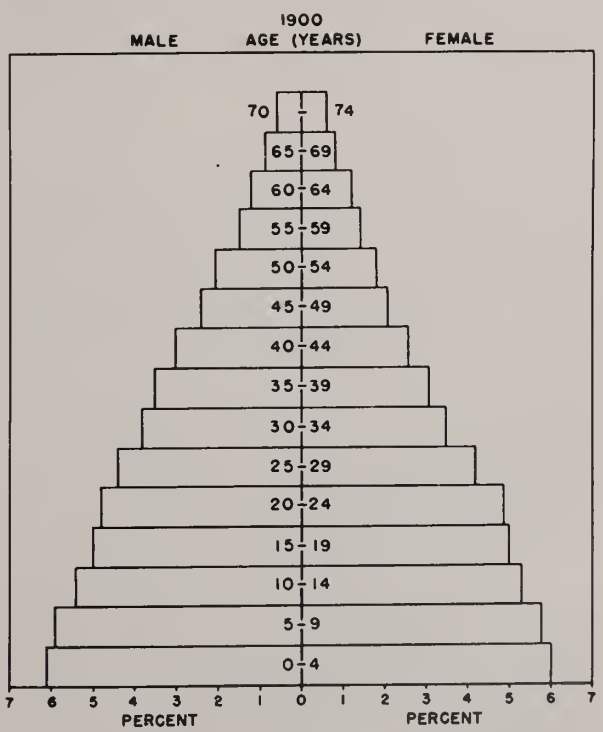


Fig. 2. Per cent distribution of the total population of the United States, by age and sex: 1900. This figure is reproduced with permission from Health and Demography, Public Health Service Publication No. 502, U. S. Department of Health, Education and Welfare, Bureau of State Services, National Office of Vital Statistics, Washington, D. C., October, 1956.

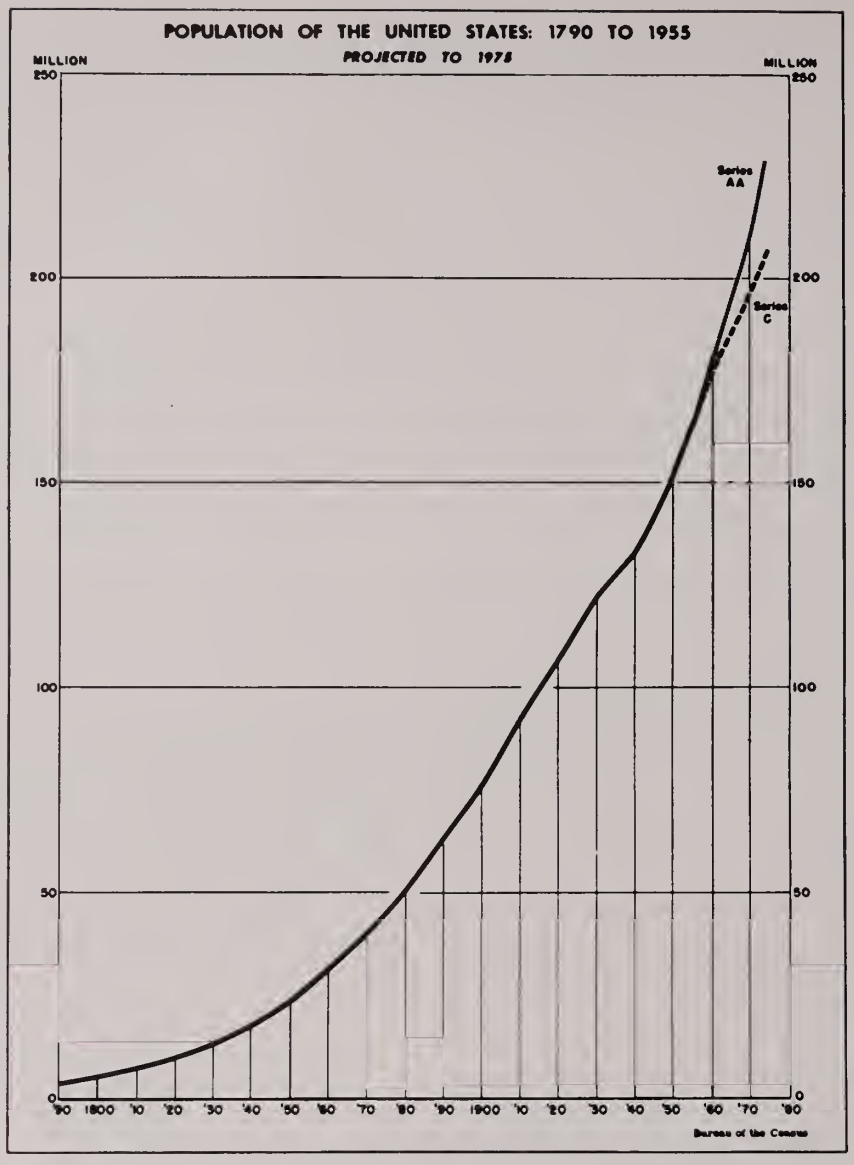


Fig. 3. This figure is reproduced with permission from Health and Demography, Public Health Service Publication No. 502, U. S. Department of Health, Education and Welfare, Bureau of State Services, National Office of Vital Statistics, Washington, D.C., October, 1956.

the number of bed-fast patients or patients confined to a wheel chair (table 5); and finally, return an appreciable number of patients to full-time, independent employment (table 6).

The question has been raised as to how in practice can an adequate coverage of rehabilitation facilities and services be provided. We do not have one clear-cut answer to that question, but some pilot programs throughout the nation

Table 3. Changes in capabilities for self-care.

	Admission	Discharge
Requiring custodial care	48	23
Requiring assistance at home	24	18
Completely independent at home	9	11
Requiring limited help outside of home	6	13
Completely independent outside of home	13	33
TOTAL	100	98*

* 2 patients died in the hospital

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Table 4. Living arrangements.

	Admission	Discharge
Own home independent	19	48
Own home dependent	36	22
Nursing home or county home infirmary	27	18
Boarding home	3	4
General hospital	14	1
No data	1	5
TOTAL	100	98*

*2 patients died in the hospital.

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Table 5. Ambulation status on admission and on discharge.

	Admission	Discharge
Bedbound	43	9
Confined to wheelchair	25	22
Ambulatory with aids	20	47
Ambulatory without aids	12	20
TOTAL	100	98*

*2 patients died in the hospital.

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show a trend in a definite direction. For example, one of these programs is being conducted in the state of Minensota.[8] The Minnesota State plan for hospitals, public health centers and related medical facilities distinguishes between a complete rehabilitation center and rehabilitation facilites.

Table 6. Vocational potential.

	Admission	Discharge
No employment	60	36
Home employment with assistance	13	11
Sheltered workshop	13	16
Full-time employment with special arrangements	7	17
Full-time independent employment	7	18
TOTAL	100	98*

* 2 patients died in the hospital

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According to this definition, a comprehensive rehabilitation center is a multiple disability facility which makes available physical and medical evaluation and services including medical supervision; physical therapy; occupational therapy; psychologic evaluation; social evaluation, including social case work; and vocational evaluation, including vocational counseling and prevocational experience. Other services, if provided on an integrated basis, can be secured by contract from readily available resources outside the center. It is estimated that one such center will be required for each 300,000 population. For the state of Minnesota, with a population of 3.3 million, five centers are either presently in operation or are planned for the immediate future. These centers are working in close cooperation with 77 so-called satellite or community rehabilitation facilities.

These facilities, which are mostly limited to physical therapy and occupational therapy, are supervised and utilized by physicians in the community. They have been established by community effort, and work in close cooperation with the comprehensive rehabilitation centers. This cooperation is maintained by regular visits of consultants from the comprehensive centers to the rehabilitation facilities. Some of the problems which arise are handled by discussion with the community center staff; if the problem cannot be solved in this way, the patient is referred to the comprehensive center by his family physician. In turn, the comprehensive rehabilitation center refers the patient back to his community rehabilitation facility once the major problems have been overcome. The community rehabilitation facilities, as well as the comprehensive rehabilitation centers, work in close cooperation with local and state agencies, especially with the Division of Vocational Rehabilitation.

Some of the comprehensive centers have their own sheltered workshops; others use sheltered workshops sponsored by other agencies concerned with rehabilitation. The accomplishments of this pilot program have been very gratifying so far, and encourage a well-planned coverage of a region with rehabilitation services and facilities in such fashion that community agencies and physicians work not only closely together with the local rehabilitation facilities, but also with the comprehensive rehabilitation centers and with state-wide agencies.

It becomes apparent that more facilities, and therefore more personnel, will be necessary to accomplish the goal of such adequate, comprehensive care for all patients who need it. One of the most formidable obstacles on the road to such achievement is the lack of trained personnel.

Educational Programs and Training Facilities

Teaching programs and training facilities should be an integral part of the planning for ideal rehabilitation services. Only a few noncomprehensive programs are located in the Pacific Northwest (Fig. 4).[1] Even fewer comprehensive rehabilitation facilities which could be used for training are found in this area (Fig. 5).[9] This demonstrates the great need for an expanded educational program in the Pacific Northwest. There is no approved school of physical therapy and only one approved school of occupational therapy. A comprehensive teaching program for medical students and residents is also needed. Therefore, the University of Washington decided to expand the teaching programs by establishing a comprehensive rehabilitation center within the University Hospital and a new Department of Physical Medicine and Rehabilitation within the School of Medicine.

Within this department, Divisions of Physical Therapy and Occupational Therapy have been organized. In addition, the following units are

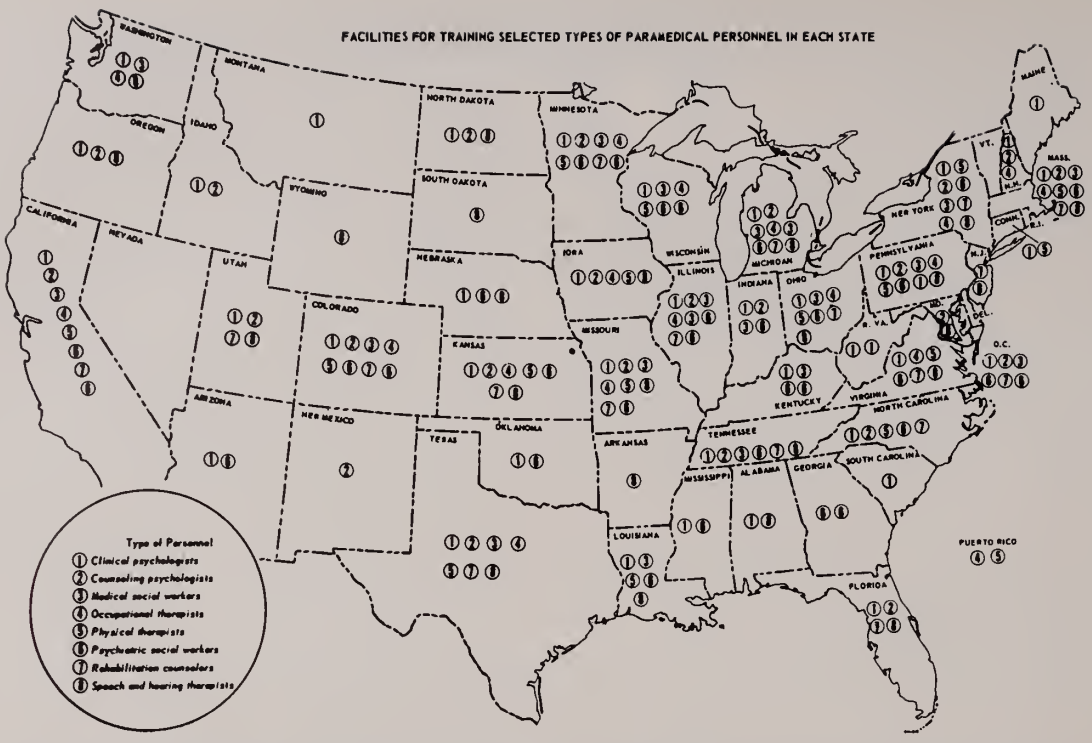


Fig. 4. This figure is reproduced with permission from Mobilization and Health Manpower, II, A Report of the Subcommittee on Paramedical Personnel in Rehabilitation and Care of the Chronically Ill, Office of Defense Mobilization, Washington, D. C., January, 1956.

included: 1) vocational counseling, 2) psychologic testing, 3) speech and hearing, 4) social service, 5) an adaptive equipment shop, and 6) rehabilitation ward. Figure 6 diagrams the organization of the units within the Rehabilitation Center. This comprehensive center will be used primarily for teaching medical students, interns, medical residents, future physiatrists and graduate students in other medical specialties interested in rehabilitation, as well as students in physical and occupational therapy. The department will also offer a joint teaching program and work experience in rehabilitation for students in some of the paramedical specialties, such as social service, speech and hearing therapy, vocational counseling, psychology and nursing. Thus, the department will directly assist the community, the state, the Pacific Northwest and Alaska by training personnel, medical and non-medical, to staff rehabilitation centers and other facilities in the area. Since the demand for rehabilitation services is great, this is a long-term program and its full effect will not be felt for several years. In areas, such as physical therapy and occupational therapy, this effect will be noticeable earlier.

Research as a teaching device will be done in the laboratories. Clinical research will be conducted on the ward and in the outpatient department. This research will not only round out the teaching program but also will help to improve rehabilitation procedures and to adapt these to the specific needs in the area to be served.

At the same time, in order to provide the variety of handicaps and diseases suitable for an adequate student experience, service will be given to patients of the community and the region. This service will be given to both inpatients and outpatients in order to provide for adequate teaching.

The team approach to rehabilitation, accompanied by panel discussions of patients' problems, will be stressed as one of the major techniques in comprehensive care (table 7). The team approach is, in my opinion, of the utmost importance to a training facility. Students of the

Table 7. The rehabilitation team.

Members of the team will be the following:

A. Physicians of all medical specialties as consultants
B. Physical Therapist
C. Occupational Therapist
D. Speech and Hearing Therapist
E. Social Service Worker
F. Vocational Counselor
G. Psychologist
H. Nurse
I. Dietician
J. Office of Vocational Rehabilitation Representative
K. Coordinator of the Team will be the Director of the Rehabilitation Center

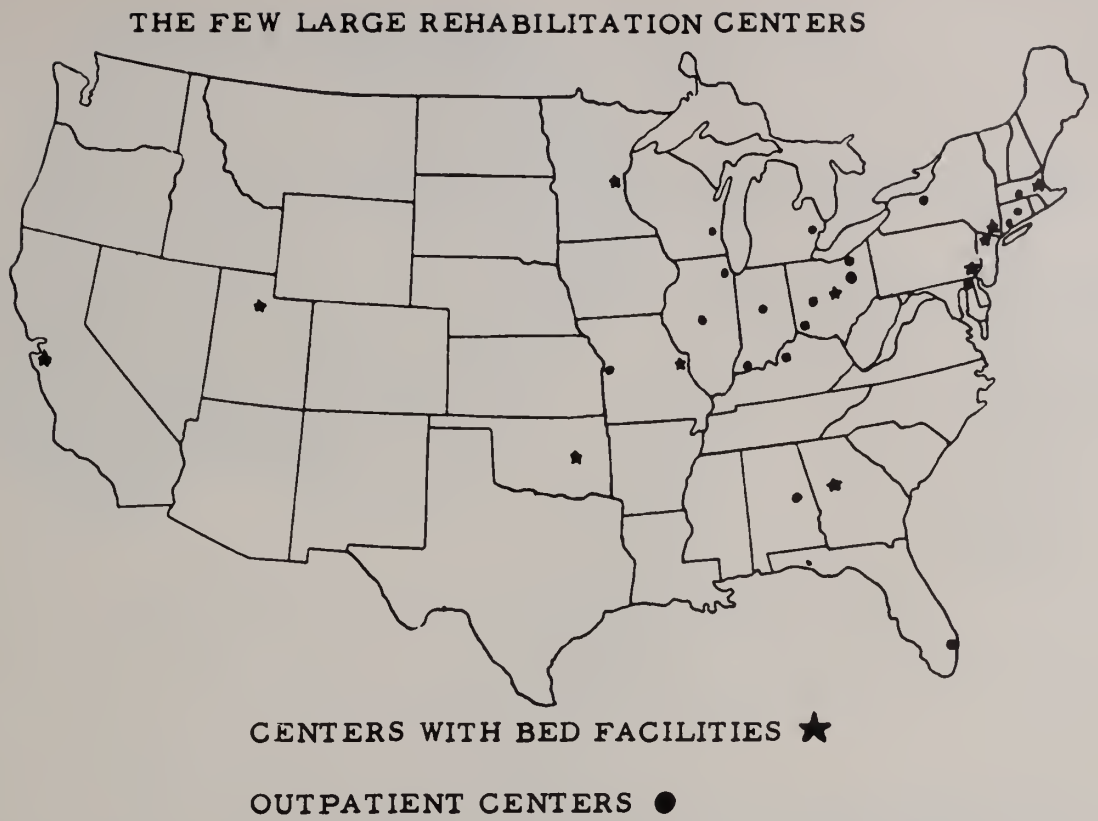


Fig. 5. This figure is reproduced with permission from What Are the Facts About Disabled People? What Can be Done for Them Through Rehabilitation?, National Health Education Committee, Inc., New York, 1957.

various specialties interested in rehabilitation will learn how to cooperate with other specialties to the benefit of the patient. The resident in physical medicine and rehabilitation will learn how to plan an adequate treatment program to minimize the effects of disease or accident. He will learn how to interpret to the other team members the physical limitations of the patient. He will also get acquainted with treatment procedures applicable to the primary injury or disease and their secondary complications or sequels. The medical student who does not plan to become a physiatrist will learn how to determine when his future patients will need comprehensive medical care, more than can be provided by one specialty alone. Both resident and student will learn how they can cooperate with the non-medical specialties to the benefit of the patient. They will learn to recognize and appreciate the contribution of these specialties to the over-all care of the patient. It will be emphasized that proper medical care alone is not sufficient to enable the patient to make the maximum psychologic, social and vocational adjustment to his disability. Physical therapy and occupational therapy students, in turn, will learn how to work together efficiently with the medical profession and the non-medical specialists.

These examples demonstrate how the student's experience will be enriched by the comprehensive training facility. He will benefit not only from the teaching provided for his own specialty, but also, to a large extent, by the teaching provided for other specialties. Thus, for example, the student in social service and vocational counseling will obtain a more extensive understanding of the medical problems, as well as the help that can be provided by physical therapy and by proper prevocational evaluation in occupational therapy. The student in psychology will learn how to guide the team by diagnostic evaluation of the psychologic difficulties of the patient and by evaluating his mental abilities. The resident in psychiatry will not only use the conventional methods of treatment, but will also learn how to help the patient resolve his difficulties by indirect treatment given by other team members.

Summary

In summary, it seems to be advantageous to

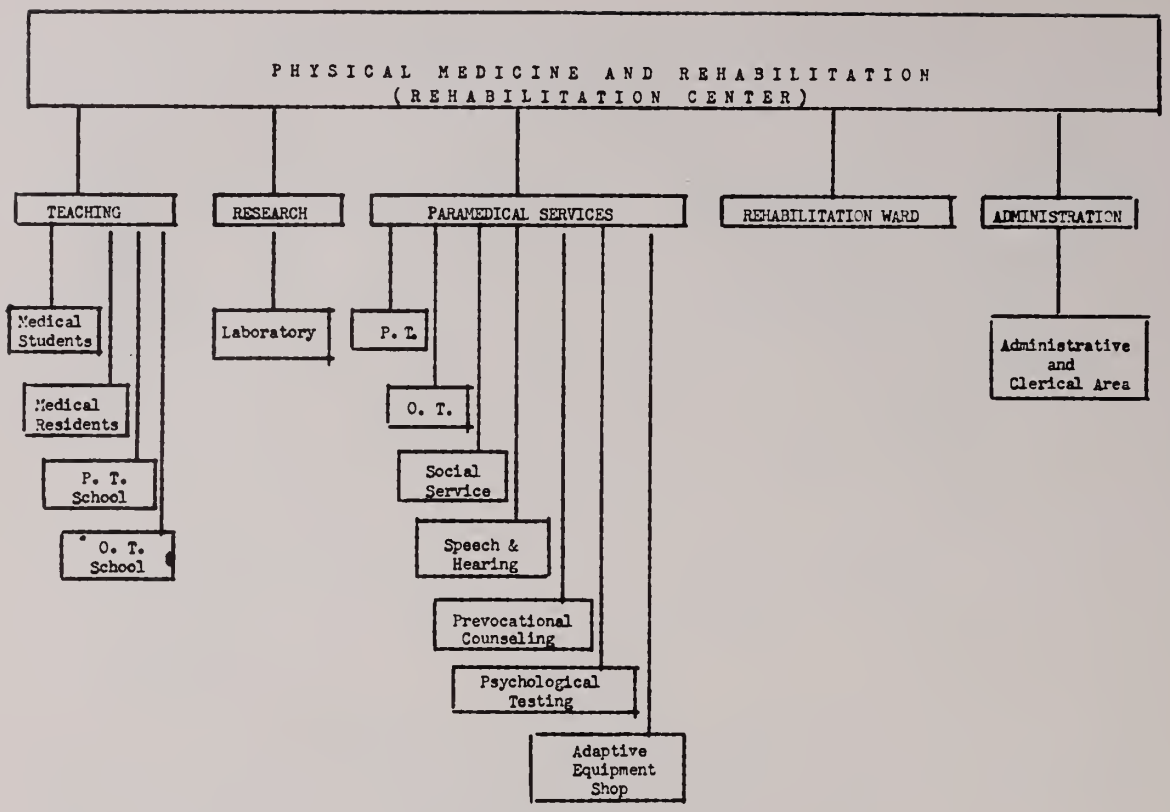


Fig. 6. Organization of the units within the Rehabilitation Center.

utilize one comprehensive training facility for all educational programs in the field of rehabilitation. It is evident that one training program will stimulate the others. Also, it is more economical to use jointly the many available facilities and courses. The location of such a training facility within a university medical school makes available for these programs a wide variety of teachers and consultants. It provides a broad research program as a basis for more profound understanding of textbook knowledge, as well as of techniques and procedures used in practice. Such a comprehensive teaching facility can provide a richer experience and a greater variety of patients to be rehabilitated than can any individual and separate program.

The training program at the University of Washington will be an integral part of the rehabilitation service in the area of the Pacific Northwest. The Center will serve as a model, and it is hoped that the experience gained will benefit other rehabilitation services yet to be established in the future.

The establishment of this program has become possible only by the generous help that the University has received from many sources. Hill-Burton funds have been made available for construction of the Rehabilitation Center. The departments of health of Oregon and Alaska made possible the transfer of funds from their states to Washington for this construction. Equipment has been provided through a grant from the Elizabeth Kenny Foundation. The Office of Vocational Rehabilitation has substantially assisted the School of Medicine in establishing the training program. Thus, this program has already become a joint effort of various individuals and agencies. •

University of Washington School of Medicine (4).

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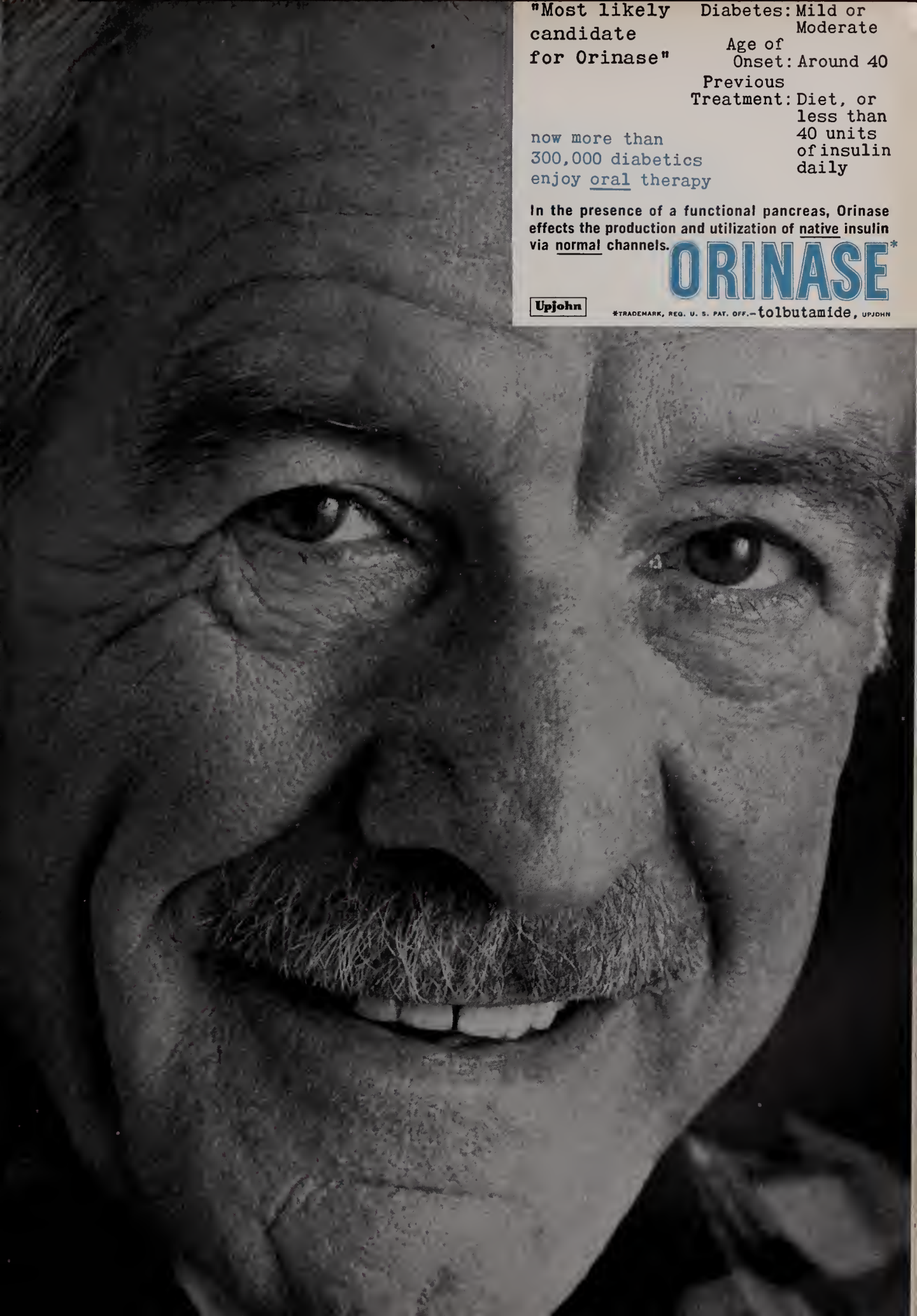
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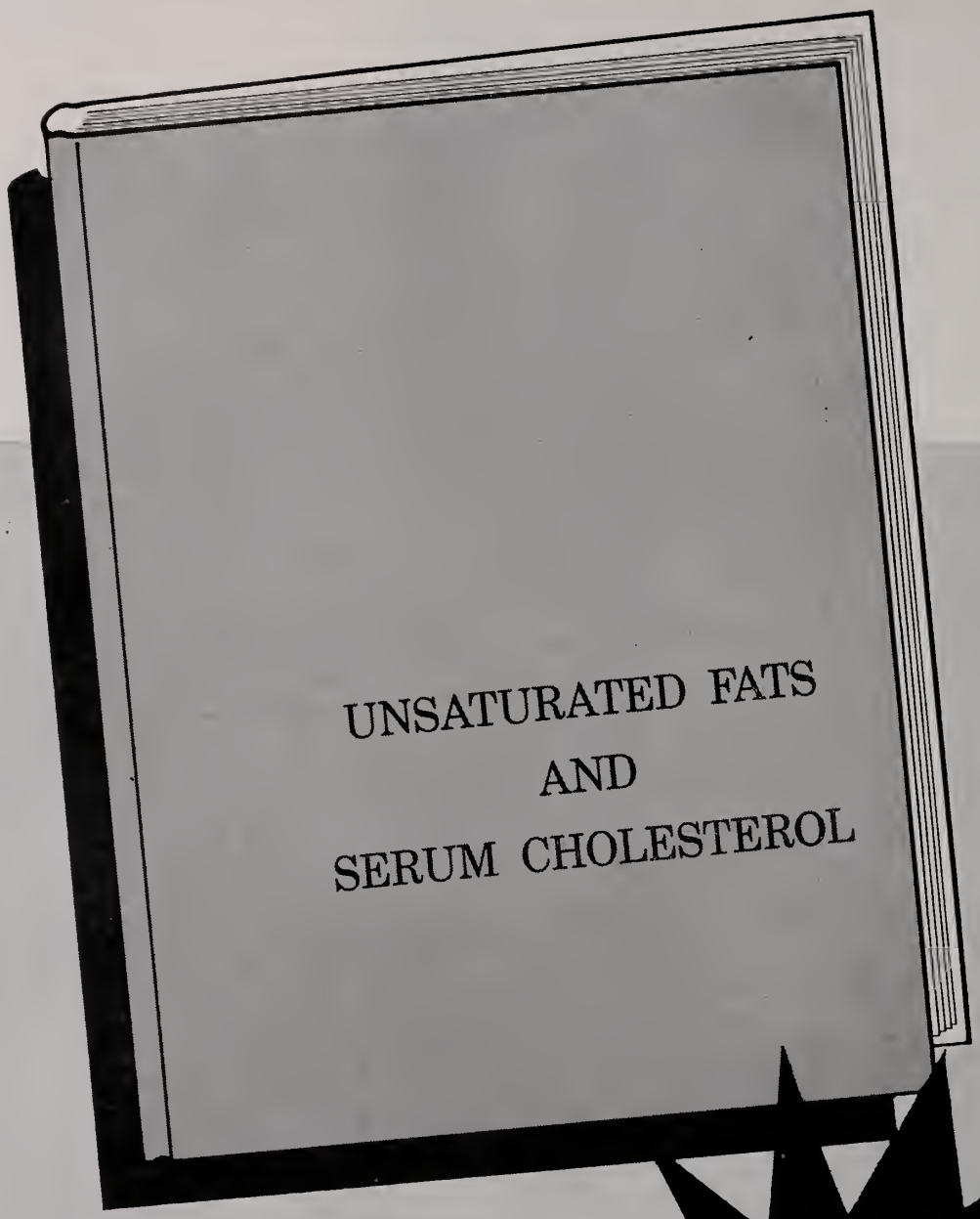
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W. C. Foster, President of State Board of Medical Examiners, Dies July 4

Wilmot Coyne Foster, President of the State Board of Medical Examiners, passed away July 4. Dr. Foster, who was recently appointed to a third five-year term by Gov. Robert D. Holmes, had been a member of the State Board of Medical Examiners since 1944 and previously had served as president and secretary-treasurer. In 1957 he was elected to the Executive Committee of the Federation of State Medical Boards.



WILMOT C. FOSTER, M.D.

Dr. Foster was graduated from the University of Oregon Medical School in 1920 and received his postgraduate training from the University of Minnesota and the University of Chicago with a Master of Science Degree from the University of Oregon Medical School in 1923. He served four years as fellow in surgery at the Mayo Clinic, Rochester, Minnesota, where he was made first assistant of the Department of Surgical Anatomy.

He was formerly associate instructor of surgery and anatomy at the University of Oregon Medical School, chief surgeon for the Portland Gas and Coke Company, surgical consultant for the American Can Company, and chairman of the Selective Service Department during World War II.

Dr. Foster was a member of the medical staffs of St. Vincent, Providence, Physicians and Surgeons and Emanuel Hospitals. He served as Chief of Staff in 1952 and Chief of Surgery from 1954-1955 at St. Vincent Hospital, Portland.

Robert S. Dow of Portland Co-Authors Volume

Robert S. Dow of Portland has collaborated with Giuseppe Moruzzi of Pisa, Italy, in the publication of a 675-page volume entitled The Physiology and Pathology of the Cerebellum.

The collaboration between Dr. Dow and Dr. Moruzzi was made possible by the Fulbright research scholarship awarded Dr. Dow during the 1953-1954 academic year.

Dr. Dow is an associate clinical professor of medicine (neurology) at the University of Oregon Medical School. Dr. Moruzzi is a professor of physiology and head of the Institute of Physiology, University of Pisa.

State Society Slates Investigation of Quackery Charges in Oregon

Recent national reports that quackery is on the upswing has prompted Oregon State Medical Society to initiate a state-wide investigation of instances where phony medical devices and treatment are being used to bilk the public.

At the same time the Society offered to cooperate with the State Board of Medical Examiners in stamping out the illegal practice of medicine.

Arch W. Diack, Chairman of the Society's Committee on Public Policy, reported that the Food and Drug Administration has called for more aggressive action against quackery to protect unfortunate persons who spend millions of dollars a year on fake cancer cures alone. He explained that as a voluntary organization, the Medical Society does not have the legal authority to prosecute the quack.

The Society plans to launch a public education campaign and at the same time gather information from the 25 component medical societies throughout the state regarding local incidents of possible quackery. Any information that is obtained from the communities will be turned over to the appropriate authorities.

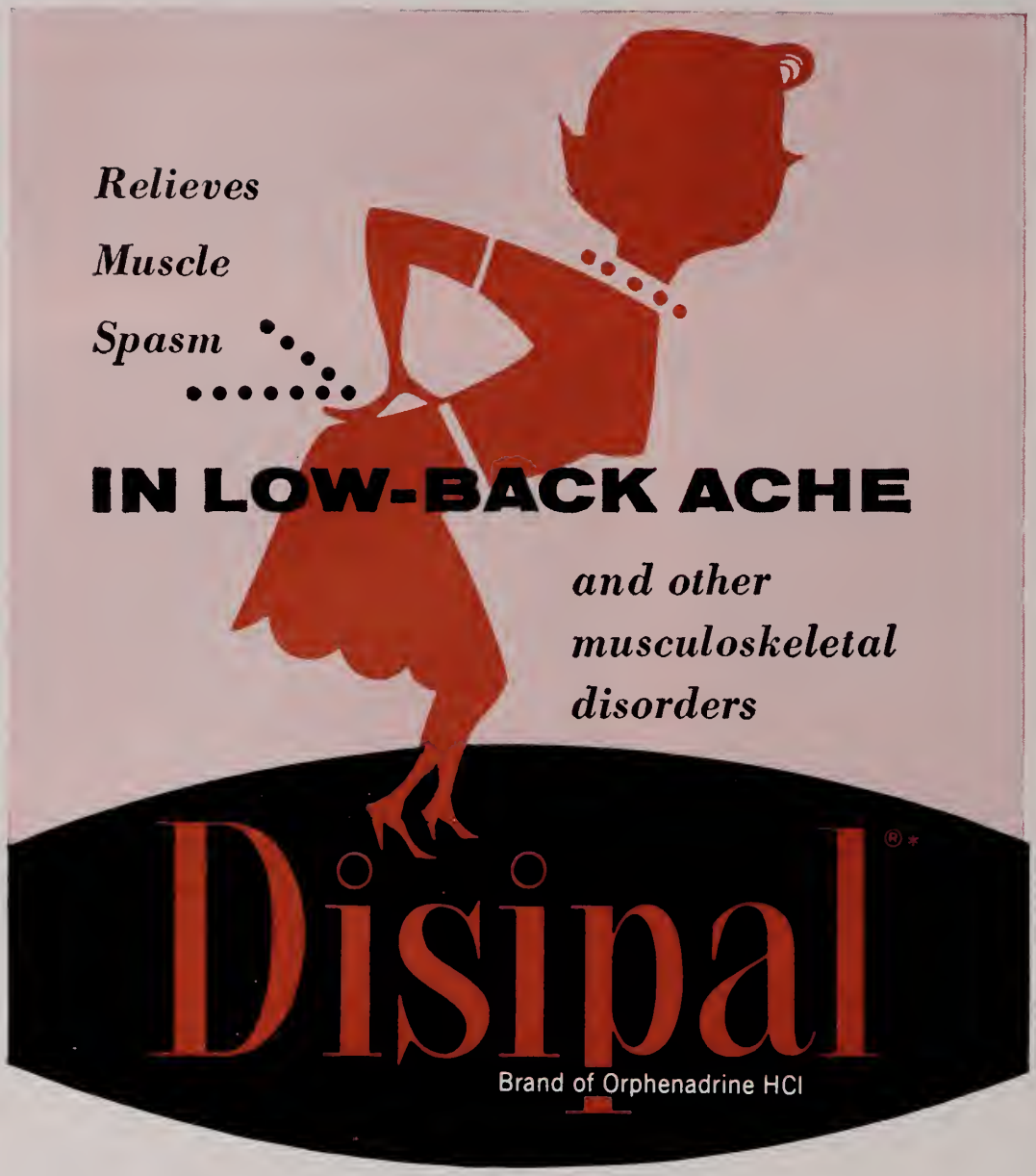
In a recent address, Albert H. Holland, Jr., medical director for the FDA, stated that medical quackery is one of the nation's big public health problems. Dr. Holland reported the National Better Business Bureau is receiving ten times as many quackery complaints as came in two years ago.

Gordon Steinfeld Named Chairman of New Committee on Aging

Gordon D. Steinfeld of Salem has been named the first chairman of Oregon State Medical Society's new Committee on Aging and will represent the Society at the AMA Planning Conference on Medical Society Action in the Field of Aging to be held in Chicago, September 13-14.

At its July meeting the Council authorized Vern W. Miller, president, to appoint a committee to gather pertinent local information on health needs of the aged. Approval of the new committee followed a report from the Committee on Public Policy which recommended that the broad scope of the problem requires the full attention of a special committee.

In addition to surveying the needs in Oregon, the Committee on Aging will cooperate with other individuals or groups interested in providing means for senior citizens to meet their health needs.



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Riker LOS ANGELES

Oregon Academy of General Practice Announces Program for Annual Session, Oct. 16-17

Oregon Academy of General Practice will hold its Annual Scientific Session October 16 and 17, 1958, at the Multnomah Hotel in Portland.

The scientific program features 14 outstanding speakers, with topics chosen especially for the general practitioner. The schedule includes talks by E. Gray Dimond, Professor of Medicine at University of Kansas; Abou D. Pollack, Assistant Professor of Pathology at John Hopkins University and Pathologist for Baltimore City Hospital; and John Armes Gius, Professor of Surgery at University of Iowa.

Fred Mac D. Richardson, Coordinator of Professional Affairs for Pennsylvania Hospital, will speak at the Annual Banquet October 16, on The Future of General Practice. Luncheon speaker that day will be John G. Walsh of Sacramento, California, Chairman of the AAGP Board of Directors. Dr. Walsh's topic is Proper Relationship Between Medical Profession and the Third Party.

Social events planned for the meeting include, in addition to the Annual Banquet, a luncheon and fashion show for the ladies on Friday, and a golf tournament on Saturday morning, October 18.

There is a non-member registration fee of $5.00, except for students, interns and residents. Ten hours of AAGP Category I credit will be granted for attendance.

PROGRAM

Oregon Academy of General Practice
1958 Scientific Session

October 16 and 17
Multnomah Hotel, Portland

THURSDAY, OCT. 16:

7:30- 9:30	Congress of Delegates
8:00-10:00	Opening of Registration and Exhibits
10:00-10:30	Pediatric Allergies G. J. Schunk, M.D., *Salem* *Clinical Instructor Pediatrics, UOMS*
10:30-11:00	Treatment of Plantar Warts and Keratosis Bertram L. Trelstad, M.D., *Salem* *President, OAGP*
11:00-12:00	Treatment of Breast Diseases: Some Controversial Issues John Armes, M.D. *Prof. of Surgery, U. of Iowa*
12:00- 1:30	Luncheon: Proper Relationship Between Medical Profession and the Third Party John G. Walsh, M.D., *Sacramento, Cal.* *Chairman, AAGP Board of Directors*
1:30- 2:00	Peripheral Vascular Disease Toshio Inahara, M.D. *Clinical Instructor Surgery, UOMS*
2:00- 2:30	Recognition of Gross Surgical Pathology Joseph E. Nohlgren, M.D. *Clinical Instructor Pathology, UOMS*
2:30- 3:00	Treatment of Hand Injuries Laurence R. Langston, M.D. *Clinical Instructor Orthopedics, UOMS*
3:00- 4:00	Recess to Visit Technical Exhibits
4:00- 5:00	Lupus Erythematosis Abou D. Pollack, M.D. *Asst. Prof. Pathology, Johns Hopkins U.*
6:00- 7:30	Social Hour and Annual Banquet— The Future of General Practice Fred Mac D. Richardson, M.D., *Philadelphia* *Coordinator of Prof. Affairs, Penn. Hosp.*

FRIDAY, OCT. 17:

7:30- 9:30	Congress of Delegates
8:00-10:00	Opening of Registration and Exhibits
10:00-10:30	Hernia Repair Millard S. Rosenblatt, M.D. *Assoc. Clinical Prof. Surgery, UOMS*
10:30-11:00	Hazards of Tonsillectomy Richard J. O'Shea, M.D., *Oswego, OAGP*
11:00-12:00	How To Be Sick Successfully Thomas Holmes, M.D. *Prof. Psychiatry U. of Wash. School of Medicine*
12:00- 1:30	Luncheon: Panel Discussion Robert L. Mighell, M.D., *Moderator* A. D. Pollack, M.D. E. G. Dimond, M.D. J. A. Gius, M.D. Thomas Holmes, M.D.
1:30- 2:00	Practical Consideration of Anemia Bernard Pirofsky, M.D. *Instructor Medicine, UOMS*
2:00- 2:30	How To Treat Carcinoma of the Cervix Ivan I. Langley, M.D., *Portland*
2:30- 3:00	Fracture Session Howard L. Cherry, M.D. *Clinical Instructor Orthopedics, UOMS*
3:00- 4:00	Recess To Visit Technical Exhibits
4:00- 5:00	Exercise Electrocardiogram As an Ofifce Procedure E. Gray Dimond, M.D. *Prof. Med., U. of Kansas*

SATURDAY, OCT. 18:

7:30 A.M.	Golf Tournament—Columbia Edgewater Golf Club

J. V. Straumfjord Named by Governor To State Board of Medical Examiners

Jon V. Straumfjord of Astoria has been appointed by Governor Holmes of Oregon to the State Board of Medical Examiners to fill the vacancy created by the death of Wilmot C. Foster.

Dr. Straumfjord, recommended to the governor by Oregon State Medical Society, was graduated from the University of Oregon Medical School in 1929 and later served his internship at Multnomah County Hospital. From 1929 to 1934 he was on the staff of the University of Oregon Medical School and from 1930 to 1934 was a staff member of the Dr. Robert C. Coffey Clinic and Hospital. He has engaged in private practice in Astoria since 1934.



JON V. STRAUMFJORD, M.D.

His professional affiliations include membership and past-presidency of the North Pacific Society of Internal Medicine and membership in the American College of Physicians. Dr. Straumfjord is a member of the board of trustees of NORTHWEST MEDICINE.

Dr. Straumfjord's two older sons, Jon V. and A. Allen, are both physicians, the first being at present resident in clinical pathology at Providence Hospital, Portland, and A. Allen being flight surgeon in the U.S. Navy. His youngest son, Robert W., is a senior medical student at the University of Oregon Medical School.

Postgraduate Meeting To Coincide with Oregon-Oklahoma Football Game

Oregon physicians planning to attend the Oregon-Oklahoma football game Oct. 4, 1958, will have an opportunity the same weekend to take advantage of a postgraduate meeting at the University of Oklahoma Medical Center. Postgraduate sessions are scheduled for October 3 and 4.

Program of the two-day meeting is as follows: Friday, October 3—9:00 A.M. to 5:00 P.M., A combined scientific session; 7:30 P.M., Dinner at the Faculty Club for registrants and their ladies. Saturday, October 4—8.30 A.M. to 10:30 A.M., Choice of five pre-game breakfast round table conferences: Surgery, medicine, pediatrics, obstetrics, gynecology.

Those wishing additional information and final program are asked to write the Office of Postgraduate Education, University of Oklahoma Medical Center, 801 N.E. Thirteenth Street, Oklahoma City 4, Oklahoma. Tickets to the football game may be obtained by writing to University of Oklahoma Athletic Ticket Office, Norman, Oklahoma.

Committee of Multnomah Medical Society Reports Misdirections of Public Health Office

Committee on Medical Economics of the Multnomah County Medical Society reported to the Society on August 5 that misdirection had been taken by the Multnomah County health officer in the fields of immunization and patient-care in general services to the community. This report was accepted by the Council of the County Society.

Conclusion of this special report read as follows: "Your committee recommends that the matters covered by this report be transmitted to the Director of the Oregon State Board of Health and that the Council (of the Multnomah County Medical Society) provide for a similar investigation to be conducted not later than a year hence to ascertain what changes in the policies of the Division (Multnomah County Division of Public Health) have been effected."

As directed in the report, the County Society has sent a letter to Harold M. Erickson, State Health Officer, suggesting a meeting between Dr. Erickson, the Multnomah County and Portland Health Officers, the Executive Committee of the County Society and the Committee on Medical Economics to further consider this matter.

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*R. C. Batterman & A. J. Grossman: Analgesic effectiveness and safety of N-acetyl-p-aminophenol, Federation Proc. 14; 316-317, March 1955.

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This article was prepared by the authors to acquaint the physicians of Oregon and the Northwest with the purpose and nature of the Medford Boys' Growth Study. The increasing stress on physical fitness and participation in competitive athletics should make this study of special interest to physicians and other groups concerned with the health and growth of our youth. JOHN F. ABLE, M.D.,* *Portland*

Medford Boys' Growth Study

H. HARRISON CLARK, Ed.D.,
RESEARCH PROFESSOR AND PRINCIPAL INVESTIGATOR
UNIVERSITY OF OREGON, EUGENE

ARTHUR A. ESSLINGER, PH.D., DEAN
SCHOOL OF HEALTH AND PHYSICAL EDUCATION
UNIVERSITY OF OREGON, EUGENE

Because of the troublesome problems arising from inter-school competitive athletics for boys among Oregon elementary schools, the Oregon Association of District Superintendents in January 1955 requested the Joint Staff Committee** to study whether or not current practices were harmful to the physical and emotional welfare of the participants. The Joint Staff Committee requested the School of Health and Physical Education, University of Oregon, to consider the matter and in so doing to consult with the University of Oregon Medical School on a research plan designed to obtain answers to these problems. The authors and representatives from the Medical School prepared an elaborate ten-year research plan involving approximately $500,000. The cost of this study was considered so prohibitive that it could not be undertaken. Instead, the Joint Staff Committee proposed that smaller phases of the problem be attempted if financial support could be found. This project was also discussed in the Advisory Council on Health, Education and Fitness of the Joint Staff Committee. This council includes representatives from various educational organizations along with representatives from the Oregon State Medical and Dental Societies.

Background of Study

Subsequently, the School of Health and Physical Education was able to raise a small budget to initiate a study involving certain of the non-medical and non-physiologic aspects of the much more extensive plan proposed jointly with the Medical School. During the first year, the study was sponsored by the University of Oregon, Southern Oregon College, Athletic Institute (Chicago, Illinois), and the Medford, Oregon, public schools. Inasmuch as this budget was sufficient only to permit the administration of the necessary tests, the Oregon State Department of Education provided an additional grant during the second year of the study to aid in the statistical treatment of the test data; the overall amount of funds for this year is approximately $6,000.

The subjects included in this study are public school boys in Medford, Oregon. Medford was chosen for three reasons as follows: (1) Organized inter-school athletic competition has been conducted in the late elementary grades for many years, which thus permits a study of the athletic problem at this early level. (2) The Medford School System had an outstanding health examination program. (3) The Superintendent of Schools, Leonard B. Mayfield, and the Director of Physical Education, Lee V. Ragsdale, indicated strong enthusiasm and pledged financial support for the project. The selection of Medford proved advantageous in another respect. Through the interest and efforts of Mr. Theodore Schopf, Athletic Director, the nearby state institution, Southern Oregon College, volunteered testing and financial help.

Purposes of Study

The overall and long-range purposes of the Medford Boys' Growth Study are as follows:

1. To construct physical and motor growth curves for such factors as the following: maturity indices, body structure measures, coordinated muscular strength elements and batteries, strength of individual muscle groups, agility and speed, explosive muscular power, and reaction time.

2. To contrast all traits in the study for boys at different levels of athletic ability, with special emphasis upon those who make and who do not make athletic teams competing in inter-school competition.

3. To relate the various physical and motor growth factors to: skeletal age, adolescent development, somatotype, growth level, nutritional status, socio-personal adjustment, and scholastic aptitude and achievement.

4. As concomitant studies: to revise and construct

(Continued on page 1188)

*Chairman, Committee on School Health and Representative to the Advisory Council to the Joint Staff Committee of the State Department of Education, the State Board of Health and the State System of Higher Education—Oregon State Medical Society. Member, Joint Committee on Health Problems in Education of the American Medical Association and the National Education Association.

**The Joint Staff Committee consists of representatives from the State Department of Public Health, the State Education Department, and the State System of Higher Education.



(Continued from page 1187)

strength tests for upper elementary, junior high, and senior high school boys; and to determine the interrelationships of the various factors included in the study at various age levels.

Analysis Permitted by Study

The study is planned to permit the following series of analyses:

1. Cross-sectional analysis for upper elementary and junior high school boys, or, more specifically, boys 9 to 15 years of age inclusive. For this analysis, 40 boys were tested at each of the seven ages; thus, the total sample consisted of 280 boys.

2. A semi-longitudinal, or convergent, analysis, based on four-year sequences with each fourth year overlapping. The overlapping ages will be 9, 12, and 15 years. For this analysis, a total of approximately 100 boys were initially tested at these ages and at 7 years of age.

3. A longitudinal study, especially from 7 to 18 years, if time and continued financing permit. In this situation, the boys tested during 1956-57 at the ages of 7, 9, 12, and 15 years would be tested annually until they graduated from high school. The growth changes for each of these boys would then be analyzed.

All subjects had received the usual health examination required by the school system and were approved by examining physicians for full participation in the school physical education program. Tests are administered within two months (before or after) of each boy's birthday to insure adequate homogeneity as related to chronologic age.

Conclusion

This research project should make a significant contribution to our knowledge of the physical and motor performances of boys at different ages and the relationship of these factors to psychologic and social development and to scholastic aptitude and achievement. Additional understanding of these physical and motor factors that are the most significant growth indicators, particularly during adolescence, should also be possible. Furthermore, the study should provide essential information contrasting the basic traits of boys who make and who do not make inter-scholastic athletic teams, as a phase of solving that perplexing problem of whether young boys should participate in this form of competition. •

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NEW YORK STATE JOURNAL OF MEDICINE

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— *Prof. F. Caramazza*
ITALIAN JOURNAL OF OPHTHALMOLOGY

HERPES ZOSTER

"...Protamide is of definite value in the relief of pain in herpes zoster. Further, vesicles and crusts disappear much more rapidly than in untreated cases."

— *William C. Marsh*
U. S. ARMED FORCES MEDICAL JOURNAL

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— *Richard T. Smith*
NEW YORK MEDICINE

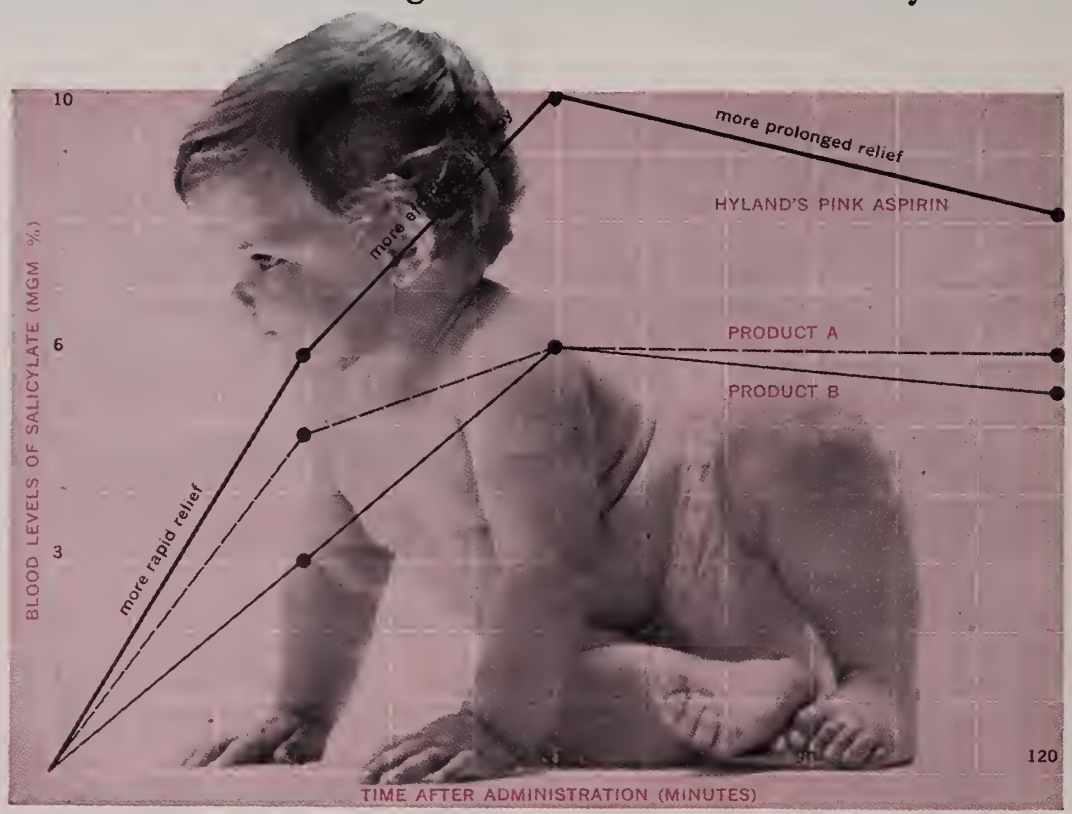
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Washington

WASHINGTON STATE MEDICAL ASSOCIATION
1309 Seventh Avenue
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ANNUAL MEETING
Spokane
September 14-17, 1958

President, Milo T. Harris, M.D., Spokane Secretary, F. A. Tucker, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

Twelve Scientific Films Scheduled at State Medical Convention

Twelve scientific films of current medical interest will be shown on Monday, September 15, during the 1958 convention of the Washington State Medical Association in Spokane, according to an announcement by President Milo T. Harris.

The films will be shown in the Isabella Room of the Davenport Hotel, where the convention will be held September 14-17. The movie program was arranged particularly for physicians not participating in the convention sports activities which will be held that day.

A. H. Robnett of Spokane, chairman of the scientific film program, announces the following schedule:

SCIENTIFIC MOVIES
Monday, September 15
Isabella Room

MORNING PROGRAM

9:00 a.m.—Hypnotism

Paul Starr, Los Angeles

The full range of thyroid hypofunction, from frank myxedema to mild or subclinical hypothyroidism (metabolic insufficiency) is covered in this film. Physiology, diagnosis, and therapy are each discussed and illustrated by actual cases. Particular reference is made to diagnostic problems and newest concepts in diagnostic methods. Color, sound, 30 minutes.

9:30 a.m.—Technique of Proctoscopy

Raymond J. Jackman and Edward R. Morgan, Rochester, Minnesota

This motion picture demonstrates on a sagittal section of the pelvis, as well as endoscopic photographs on a live model, the technique of passing the protoscope. Color, sound, 16 minutes.

9:56 a.m.—Hemorrhoids or Piles and the Early Detection of Rectal Cancer

A. Lawrence Abel and H. Gordon Ungley, London

This film presents a modern approach to differential diagnosis and treatment of internal and external hemorrhoids with particular reference to the identification of associated pathological conditions of anus and rectum. Color, sound, 24 minutes.

10:25 a.m.—Treatment of Edema in Congestive Heart Failure

A review of the normal and abnormal fluid and electrolyte content and balance of the body as they relate to congestive heart failure is presented. The backward and forward failure theories are explained and the various means for controlling edema of this type are discussed. Color, sound, 20 minutes.

10:50 a.m.—Fractures About the Knee

William Larmon, Chicago

This film explores the anatomy of the joint and its surrounding structures as they affect and are affected by fractures in the area. Management of three fractures are then detailed: fractures of the patella, intercondylar fractures of the femur, and fractures of the tibial plateau. Color, sound, 24 min.

11:19 a.m.—Bilateral Upper Extremity Amputation

Francis M. Brink and David E. Sullivan, Spokane

What a person can do in spite of a serious handicap is illustrated in this film. It shows a woman, about 40, with bilateral upper extremity amputations a very short distance below the elbow joints. She is not wearing prostheses. She is doing housework, changing a baby, and even doing fancy needlework. This woman is married, reared four children, and made their clothes. Color, sound, 9 min.

11:33 a.m.—Breech Delivery

Bruce Mayes, University of Sydney, Australia

This film demonstrates the types of breech presentation, their relation to pelvic types, diagnosis by palpation and x-ray, x-ray pelvimetry, and external version. Breech extraction is then demonstrated using the Lovsett technique to deliver the arms. Color, sound, 18 minutes.

AFTERNOON PROGRAM

2:00 p.m.—Human Gastric Function

Stewart Wolf, Oklahoma City, Oklahoma

A unique patient widely known in medical circles had an accident in early child-

(Continued on page 1192)

(Continued from page 1191)

hood which resulted in an extensive gastric fistula. The fistula permitted examination of the mucosa, secretory action and gastric motility under varying conditions. These studies gave the investigators new insight into the stomach's complex responses to different psychological states and stresses. Color, sound, 18 minutes.

2:23 p.m.—Aneurysms of the Abdominal Aorta; Surgical Considerations Based Upon Analysis of 500 Cases

Michael E. De Bakey, Denton A. Cooley and E. Stanley Crawford, Houston, Texas

This film is concerned with surgical considerations of aneurysms of the abdominal aorta treated by resection and replacement by aortic homografts and various plastic substitutes. Certain characteristic clinical, pathologic and diagnostic features of these aneurysms are illustrated. Emphasis is placed upon surgical management. Color, sound, 27 minutes.

2:55 p.m.—Congenital Atresia of the Esophagus

Willis J. Potts, William L. Riker and Arthur DeBoer, Chicago

The management of the newborn infant with congenital atresia of the esophagus and tracheoesophageal fistula represents an interesting, almost classic example of medical and surgical achievement. This film depicts the signs and symptoms of the condition, the diagnostic procedures, the operation itself and the postoperative care. Color, sound, 23 minutes.

3:23 p.m.—Disorders of the Heart Beat

American Heart Association, New York

This film presents material on atrial and ventricular premature beats, on atrial and ventricular paroxysmal tachycardia, on atrial flutter and fibrillation, ventricular fibrillation and on certain conduction defects. Color, sound, 17 minutes.

3:45 p.m.—Auto Crash

John More, Ithaca, New York

This film shows the results of automobile crash injury research at Cornell University, and how this information was used in developing safety features in automobiles. Black and white, sound, 15 minutes.

(The following films, which are described above, will be shown a second time during the afternoon.)

4:05 p.m.—Hemorrhoids or Piles and the Early Detection of Rectal Cancer

4:34 p.m.—Breech Delivery

Washington State Obstetritians To Meet in Spokane October 11

Washington State Obstetrical Association fall meeting is slated for Saturday, October 11, at the Davenport Hotel, Spokane. Guest speakers will be: Duncan E. Reid, Boston, professor of obstetrics, Harvard Medical School, and Keith P. Russell, Los Angeles, University of California School of Medicine.

The program is as follows:

9:00 Registration
9:30 *Management of Labor and Delivery*
Duncan E. Reid, M.D.
10:30 *Forensic Obstetrics*
Keith P. Russell, M.D.
12:00 Luncheon and Round Table
Richard D. Reekie, M.D., Moderator
2:30 *Repetitive Abortion and Premature Labor*
Duncan E. Reid, M.D.
3:30 *Pregnancy and the Thyroid Gland*
Keith P. Russell, M.D.
4:30 Business Meeting
6:00 Social Hour
7:00 Banquet
The Doctor's Wife Tells the Truth
Mrs. Mary Bard Jensen

Advance registration is necessary. Fee is $11 for members and $15 for non-members, which includes luncheon, social hour and banquet. Wives are invited to the social hour and banquet and the charge is $5. Those planning to attend the fall session are asked to make their checks payable to Washington State Obstetrical Association and mail to 1420 Seneca St., Seattle 1.

Hypertension and Congestive Heart Disease Is Theme of Annual Symposium

Four outstanding authorities in the field of heart disease will speak at the Washington State Heart Association's Annual Symposium Friday and Saturday, October 17 and 18, at the University of Washington. The sessions are co-sponsored by the State Health Department.

Guest speakers are: Sir George White Pickering, Regius Professor of Medicine, University of Oxford, England; Carleton Chapman, Professor of Medicine, University of Texas, Dallas, Texas; Lewis Dexter, Professor of Medicine, Harvard University, Boston, Massachusetts; and James V. Warren, Professor of Medicine, Duke University, Durham, North Carolina.

Robert Bruce of Seattle, Chairman of the Symposium Planning Committee, has announced that "Hypertension and Congestive Heart Disease" is the theme for the tenth annual scientific sessions.

Highlights of the program include: Starling's Concepts of Heart Failure in Man and Concept of Essential Hypertension, Sir Pickering; Hemodynamic Effects of Exercise and Response of Hypertensive Patients to Physical Exercise, Dr. Chapman; Clinical-Physiologic Correlations of Congestive Heart Failure and Cardiac Output and Congestive Heart Failure, Dr. Dexter; Treatment of Congestive Failure and The Natural History of Hypertensive Disease in Man and Hypertension in the Giraffe, Dr. Warren.

Guest speakers at the Annual Symposium Banquet Friday evening at the Washington Athletic Club will be both Dr. and Mrs. Warren. Gloria Warren is the author, with Evelyn Stead, of one of the most widely-known volumes on low-fat cooking.

As in previous years, abstracts of papers to be presented will be available at the Symposium. There is no registration fee. The Symposium is approved for credit in Category I, American Academy of General Practice.

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Senator Jackson Proposes More Social Security

U. S. Sen. Henry M. Jackson (D., Wash.) has announced that 194,334 Washington State residents were receiving monthly benefits totalling $11,007,000, an average of slightly less than $57 per month, as of the end of last year.

The figures for 1957, just released by the Department of Health, Education and Welfare, cover benefits paid for retired workers, wives or husbands, children, widows or widowers, mothers, parents and disabled workers.

Jackson believes the low average shows need for further increase in Social Security disbursement citing cost-of-living increase every month for almost two years. He said he would support in the Senate "at least" 7 per cent increase in benefits voted by the House, together with certain other refinements of the law.

The pending changes would grant flat 7 per cent increases, or a minimum increase of $3 to each insured worker, would raise the individual ceiling from $108.50 to $118 per month, and the family limit from $200 to $254 per month These changes apply to those now on the roles. Insured workers coming on roles in the future would be eligible for up to $127 per month.

Of the Washington State recipients, Jackson said 2,537 were disabled workers between the ages of 50 and 64 who benefitted for the first time by 1956 changes he co-sponsored in the Social Security Act making disabled workers over 50 eligible for benefits.

Jackson said another 1956 amendment he co-sponsored, lowering the women's retirement age to 62, meant that throughout the nation some 300,000 women, 63-64, started receiving benefits for the first time; no state breakdowns of this figure were available.

The Secretary of Health, Education and Welfare, reported that more than 11 million persons were sharing in the Social Security program at the end of 1957. This total represented an increase of approximately two million beneficiaries as a result of 1956 amendments to the law.

County	Number	Monthly Amount
Adams	308	$ 17,400
Asotin	1,192	62,179
Benton	1,964	107,920
Chelan	3,148	169,228
Clallam	2,108	121,132
Clark	6,964	364,223
Columbia	342	17,709
Cowlitz	3,955	227,844
Douglas	457	24,616
Ferry	223	11,777
Franklin	712	39,889
Garfield	192	9,918
Grant	1,203	62,296
Grays Harbor	5,479	319,254
Island	914	48,882
Jefferson	624	33,117
King	64,311	3,835,326
Kitsap	4,574	243,695
Kittitas	1,584	88,169
Klickitat	839	42,603
Lewis	4,190	218,476
Lincoln	587	32,532
Mason	1,217	68,149
Okanogan	1,512	77,699
Pacific	1,724	95,096
Pend Oreille	584	33,144
Pierce	21,417	1,218,705
San Juan	379	20,696
Skagit	3,855	210,543
Skamania	332	16,813
Snohomish	11,970	679,037
Spokane	19,350	1,090,813
Stevens	1,373	69,264
Thurston	3,936	208,988
Whkiakum	304	15,924
Walla Walla	2,859	153,425
Whatcom	6,071	339,152
Whitman	1,463	82,658
Yakima	9,613	501,647

Spending Growth to Perplex Legislature

Washington State, according to the Research Council estimates, will end the current biennium next June 30 with a deficit of about $100 million in the General Fund. To avoid running the red ink into larger figures during the following two years, the Legislature (assuming normal growth of present revenues) will have to find an additional $173 million.

Subcommittees of the Governor's Tax Advisory Council have made some major recommendations for taxation changes, but the Tax Council itself has not yet acted upon them. The Research Council estimates that these recommendations would yield at least $25.8 million more to the State (and probably an indefinite additional amount).

Future state spending, however, is due to go up sharply because of increases in the number of persons receiving services from programs now in effect. Without any change in the levels of service, we estimate that upwards of an additional $133 million may be required in 1959-61 principally in welfare, public schools, higher education and institutions.

The estimate of a net $25.8 million total increase in revenue from recommendations by Tax Advisory Council subcommittees includes the following additional taxes:

1) A business and occupation tax on farming (exempting part-time agricultural pursuit) at the rate of 0.4 per cent; 2) a B & O tax on income from property rental at the rate of 0.4 per cent; 3) a sales tax on personal services at the present rate; 4) an insurance premiums tax on medical service bureaus and health care agencies at the present rate.

In addition to the above changes, there were two major recommendations (tax on financial institutions and intangibles) for which no revenue estimate was possible because of a lack of experience in determining the extent of the base.

All of these proposals together would not even come close to producing the estimated $173 million additional needed income. That point re-emphasizes the Research Council's position that it never has been more imperative to re-examine the State's services in relation to the public's willingness and ability to pay for them.

To put the question another way: If our income, based on present taxes, will be about $670 million for the next fiscal period, should we continue spending at the rate of $843 million and levy taxes to make up the difference?

Taken from report of the Washington State Research Council, July 24, 1948.

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WSMA Executive Committee Urges Poliomyelitis Immunization of Preschoolers

The attack of paralytic poliomyelitis in the preschool child is three to four times that of the older child. This fact has recently been emphasized by the American Academy of Pediatrics in a drive they are sponsoring to get the preschool child immunized against poliomyelitis. In the State of Washington we hope every physician will bear these facts in mind and that he will check on each preschool child who comes to his notice, either to initiate poliomyelitis immunization, or complete those already started.

Executive Committee
Washington State Medical Association

Locations

Frank F. Allen has joined the surgical staff of the Wenatchee Valley Clinic. He will head the department of urology. Dr. Allen received his medical degree from Tufts College Medical School in 1948. He served an internship and residency at the U. S. Naval Hospital, Chelsea, Mass., and on completion served as medical officer aboard the USS Oriskany, 6th Fleet Hospital Ship. Following his specialty training in urology at the US Naval Hospital, San Diego, Calif., Dr. Allen was Chief, Urology Department Naval Hospital, Guam, Mariana Islands.

Waverly Ellsworth, heart surgeon and former clinical instructor in surgery at the University of Michigan Medical School, has opened offices in Spokane. Dr. Ellsworth was graduated from the University of Buffalo School of Medicine in 1949 and interned at Mary Hitchcock Memorial Hospital, Hanover, N.H. He completed two years of anesthesia and general surgical training at Hitchcock, in Boston and at the Veterans Hospital in White River Junction, Vt.

Richard T. Andersen has joined the staff of the Snoqualmie Valley Clinic in Snoqualmie as a general practitioner. Dr. Andersen is a graduate of St. Louis University of Medicine and took his internship at Providence Hospital, Seattle.

Thomas W. Skalley has become associated with the Everett Clinic in Everett. Dr. Skalley received his medical training at the University of Washington School of Medicine from which he was graduated in 1954. He served his internship at Charity Hospital, New Orleans, and then remained at that same hospital until 1958 as resident physician in obstetrics and gynecology.

John Lorang has entered into association with Galen A. Rogers in Clarkston. Dr. Lorang received his medical degree from the Stritch School of Medicine of Loyola University, Chicago. For the last two years he has been at Sacred Heart Hospital, Spokane, where he first served his internship and then served as senior resident surgeon.

Ralph Eddings has joined the staff of the Snoqualmie Valley Clinic in Snoqualmie where he will engage in general practice. Dr. Eddings completed his medical studies at the University of Washington School of Medicine. Following his internship at King County Hospital, he served a one-year residency in surgery at the Veterans Hospital in Seattle.

Theodore J. Fuller has joined the department of internal medicine at the Wenatchee Valley Clinic. Dr. Fuller received his medical degree from Washington University School of Medicine, St. Louis, Mo., in 1953. He served his internship and residency at Barnes Hospital, St. Louis. In 1956 he was associated with the University of Washington School of Medicine where he was awarded a fellowship by the National Heart Institute to conduct special research in diseases of the heart and lungs. Prior to coming to Wenatchee he was in the private practice of internal medicine, specializing in diseases of the chest, with offices in Seattle.

Roderick S. Coler has opened offices in Kennewick for the practice of internal medicine and diagnosis. Dr. Coler was graduated from New York Medical College, Flower and Fifth Avenue Hospitals, in 1954. He interned at Good Samaritan Hospital in Portland and then took his specialty residency training at the Veterans Administration Hospital, Portland.

John M. Bell has joined Malcolm Heath for the practice of medicine in the San Juan Islands. Dr. Bell was graduated from Standford University School of Medicine in 1945 and had been associated with the Palo Alto Clinic in California since 1947.

Joseph W. Brasch has entered into association with John J. Black of Spokane for the practice of obstetrics and gynecology. Dr. Brasch received his medical degree in 1954 from the Stritch School of Medicine of Loyola University, Chicago, and served his internship at Sacred Heart Hospital, Spokane. He took his residency training at Evanston, Ill.

Ralph A. Foster has resumed his practice in Yakima following four years of postgraduate study of surgery at Seattle. Dr. Foster took his surgical training at the Virginia Mason Hospital. After completing his training at the Hospital, he accepted a one-year fellowship in surgery at the Mason Clinic where he was associated with Joel Baker. Dr. Foster is a 1938 graduate of the University of Oregon Medical School.

R. Hugh Minor has opened offices in Kennewick for the practice of ophthalmology. Dr. Minor is a 1954 graduate of the University of Washington School of Medicine. He served a one-year internship at Philadelphia General Hospital and recently completed three years service as a fellow in ophthalmology.



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Charles Illingworth of Glasgow To Give Strauss Lecture at U.W.

On Friday, November 7, Professor Charles F. W. Illingworth will give the Ninth Annual Alfred A. Strauss Lecture sponsored by the Department of Surgery of the University of Washington School of Medicine. Professor Illingworth. Regius Professor of Surgery at the University of Glasgow, Scotland, will speak on Endocrine Aspects of Breast Cancer. The lecture will be held in the Auditorium of the Health Sciences Building, University of Washington, at 8:15 p.m. Previous Strauss Lecturers have been Alfred A. Strauss, Dallas Phemister, Warren Cole, Owen Wagensteen, Lester Dragstedt, Edward Churchill, and Alfred Blalock.



Prof. Charles F. W. Illingworth

Professor Illingworth is president of the British Society of Gastroenterology, and past president of the Association of Surgeons of Great Britain and Ireland, and the Surgical Research Society.

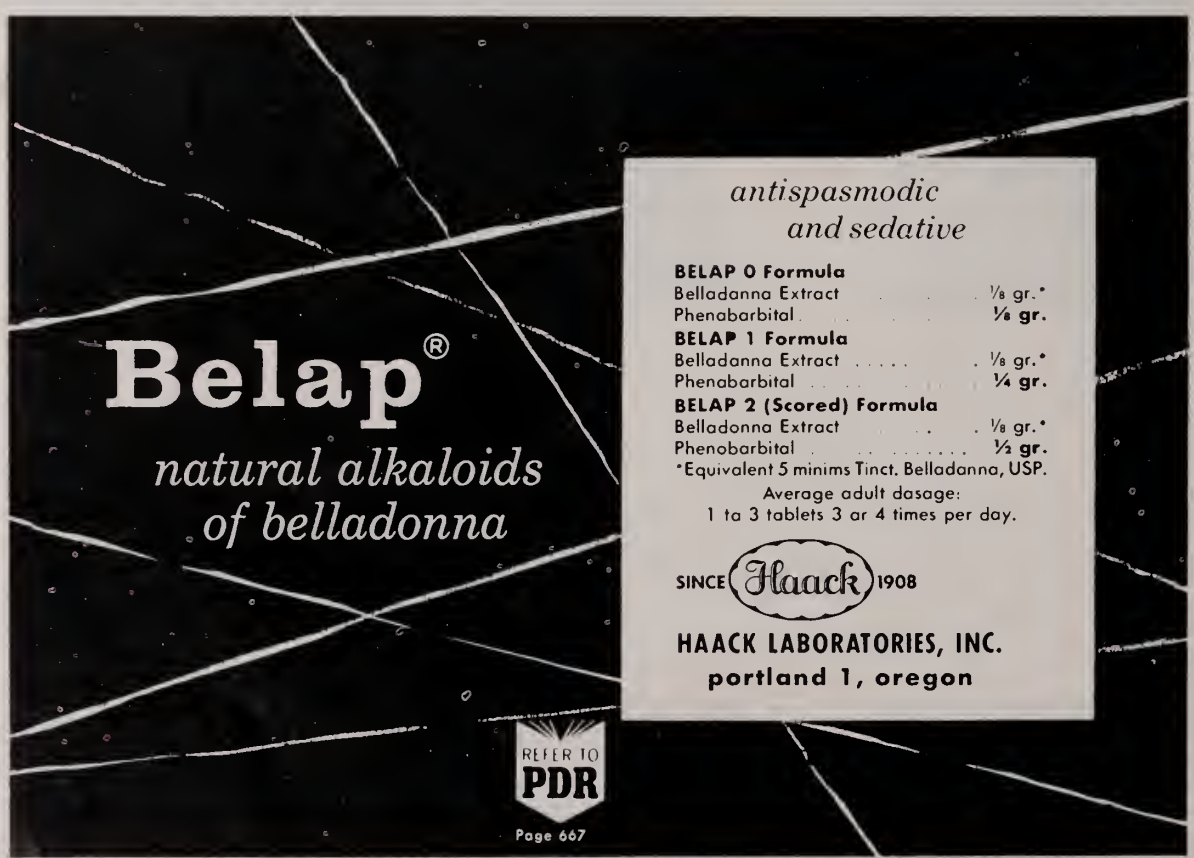
Professor Illingworth is the author of numerous articles and surgical textbooks which include: A Textbook of Surgical Pathology, A Short Textbook of Surgery, A Textbook of Surgical Treatment, Including Operative Surgery, and a monograph, Peptic Ulcer. Professor Illingworth is world-famous for his contributions to the surgical knowledge of digestive disorders.

In recent years Professor Illingworth has extended his interests and research to the hormonal aspects of cancer. Under his guidance the first ablation of the pituitary gland with radioactive materials was performed in Great Britain. Approximately 100 patients with advanced carcinoma of the breast have been treated with this technique, and dramatic palliation has resulted in a significant number. Extensive biochemic determinations have been performed in all of these patients in an attempt to acquire basic knowledge concerning this dread disease and the mechanisms which may or may not control its growth. Professor Illingworth will review the current concepts of therapy for breast carcinoma in light of these many studies.

Professor Illingworth will spend the entire week of November 2 in the Department of Surgery, participating in ward rounds, operating room demonstrations and seminars at King County Hospital, Seattle. All physicians are welcome to attend these functions also.

Seattle Physicians Urged To Return UGN Pledges Promptly

Letters have been mailed to all Seattle physicians asking for donations to this fall's United Good Neighbor Campaign. A. L. Banks, chairman of the Physician's Section, UGN, reports that $51,773 is the quota aimed for and urges that Full Share pledges be returned as promptly as possible. Last year, physicians gave $50,629.44, or 95.7 per cent of their quota of $52,888.





running noses and open stuffed noses orally



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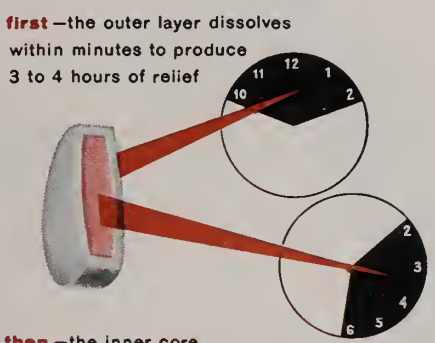
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Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

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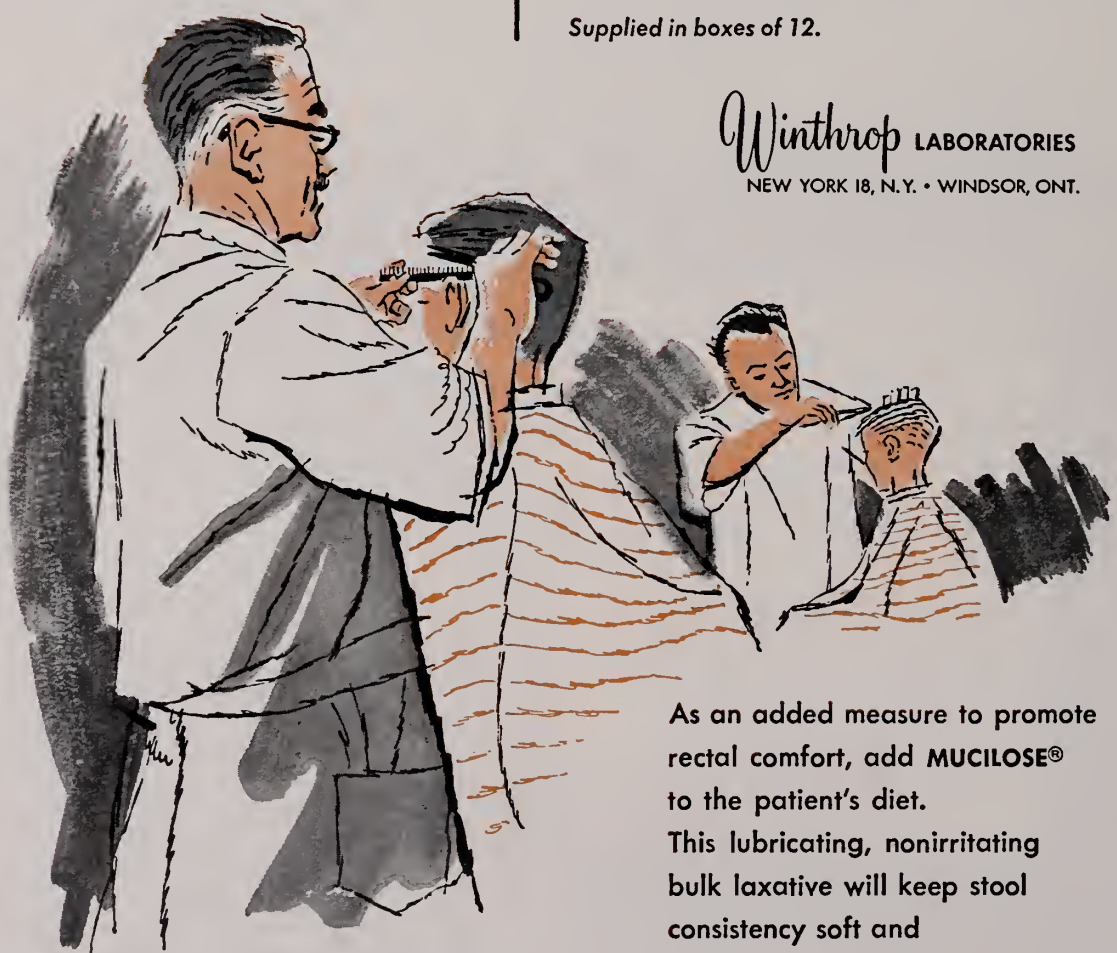
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State Board of Medicine

The regular meeting of the State Board of Medicine was held in Boise, July 14, 15, 16, 1958. Members of the Board attending the session included S. M. Poindexter, Boise, Chairman; W. B. Ross, Nampa, Vice-Chairman; Leland K. Krantz, Idaho Falls; Fred T. Kolouch, Twin Falls, and two new members, C. Gedney Barclay, Coeur d'Alene, and Joseph E. Baldeck, Lewiston.

* * *

Three physicians wrote the examination and received their licenses to practice medicine and surgery in the state:

Eugene Floyd Landers, Nampa (State School). Graduate University of Colorado School of Medicine, Denver, M.D. Degree June 1957. Internship Presbyterian Hospital, Denver, 1957-58. General.

Colin Vance Taylor, Boise. Graduate University of Oregon Medical School, Portland, M.D. Degree June 1957. Internship Good Samaritan Hospital, Portland, 1957-58. General.

Charles Rex Borup, Boise. Graduate University of Utah College of Medicine, Salt Lake City, M.D. Degree June 1957. Internship Thomas Dee Memorial Hospital, Ogden, 1957-58. General.

* * *

Permanent licenses were granted to the following who had received Temporary Licenses since the January, 1958 meeting of the board:

John William Armstrong, Lewiston; *Richard N. Smith,* Twin Falls; *Dale D. J. Chodos,* Idaho Falls; *David Clarence Valder,* Moscow; *Gordon Wesley Johnson,* Caldwell; *Bert R. Erickson,* Caldwell; *John R. Nielsen,* Caldwell, and *Lewis C. Duncan,* Spokane, Washington.

* * *

Licenses were granted to the following candidates on the basis of written examination in a state maintaining standards comparable to Idaho, or through certification of the National Board of Medical Examiners:

Marvin Earl Blough, Nampa. Graduate University of Kansas School of Medicine, Kansas City. M.D. Degree June 1953. Internship Wesley Hospital, Wichita, 1953-54. General.

William Alfred Birt, Milton, West Virginia. Graduate Temple University Medical School, Philadelphia, Pennsylvania. M.D. Degree March 1956. Internship George Geisinger Memorial, Danville, Pennsylvania, 1946-47. General Surgery.

John Benson Clauser, Military Service. Graduate Indiana University School of Medicine. Bloomington and Indianapolis, Indiana. M.D. Degree June 1956. Internship Indianapolis General Hospital, Indianapolis, Indiana, 1956-57. Anesthesia.

Augustus Masashi Tanaka, Ontario, Oregon. Graduate Long Island College of Medicine, (now the State University of New York Downstate Medical Center, College Of Medicine) Brooklyn. M.D. Degree June 1951. Internship Kings County Hospital, Brooklyn, 1951-52. Surgery.

Karl Edwin Blake, Pittsburgh, Pennsylvania. Graduate School of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania. M.D. Degree April 1948. Internship St. Joseph's Hospital, Pittsburgh, 1948-49. General Surgery.

Willie Oscar Autery, Jr., Gooding (Idaho State Tuberculosis Hospital). Graduate Baylor University College of Medicine, Houston, Texas. M.D. Degree May 1957. Internship General Rose Memorial Hospital, Denver, Colorado, 1957-58. General.

Richard G. Gardner, Boise, Graduate University of Oregon Medical School, Portland, Oregon. M.D. Degree June 1953. Internship University of Oregon Medical School Hospitals and Clinics, Portland, Oregon, 1953-54. Orthopedics.

John J. Lorang, Clarkston, Washington. Graduate Stritch School of Medicine of Loyola University, Chicago, Illinois. M.D. Degree June 1956. Internship Sacred Heart Hospital, Spokane, Washington, 1956-57. General.

Charles Walker Schabacker, Twin Falls. Graduate University of Minnesota Medical School, Minneapolis, Minnesota. M.D. Degree June 1954. Internship Fitzsimons Army Hospital, Denver, Colorado, 1954-55. Pediatrics.

Charles Richard Nixon, Blackfoot. Graduate The George Washington University School of Medicine, Washington, D. C. M.D. Degree June 1957. Internship Latter Day Saints Hospital, Salt Lake City, Utah, 1957-58. General.

* * *

A Temporary License was issued on July 22 to *Elmer McLeod Wright,* Twin Falls. Graduate of Western Reserve University Medical School, Cleveland. Internship, University Hospitals. Residency in pediatrics, University Hospitals and City Hospital, Cleveland. Granted TL-208. Pediatrics.

Location

Joseph Downs has opened his medical practice in Mountain Home. Dr. Downs received his medical training at Tufts College Medical School in Boston from which he was graduated in 1954. He served his internship at Springfield City Hospital, Springfield, Ohio. Prior to locating in Mountain Home, Dr. Downs practiced for three years in Oakridge, Ore.

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[illegible] forms:

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[illegible] phosphate (tetracycline phosphate [illegible]) equivalent to tetracycline hydro[illegible] ..... 250 mg.
[illegible] (as novobiocin sodium) ... 125 mg.

[illegible] KM,†† Flavored Granules, 60 cc. [illegible] Bottle. When sufficient water is added to [illegible] the bottle, each teaspoonful (5 cc.) contains:

[illegible] (tetracycline) equivalent to tetracycline hydrochloride .... 125 mg.
[illegible] (as novobiocin calcium) . 62.5 mg.
[illegible] monophosphate ..... 100 mg.

[illegible]:

[illegible] Capsules
[illegible] adult dosage is 2 capsules q.i.d.

[illegible] KM Granules
[illegible] treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to [illegible] of body weight per day, administered in 3 or 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

American College of Surgeons Slates Sectional Meeting at Vancouver, B.C.

One of the five sectional meetings of 1959 scheduled by the American College of Surgeons will be held at Vancouver, B.C., February 26, 27 and 28. Thomas R. Sarjeant, chairman of the local committee, reports that his committee has outlined a meeting which includes extensive symposiums on trauma, cancer and infections. In addition, numerous papers and panel discussions on arterial occlusive disease and disease of the pancreas will be presented.

The Fellowship Luncheon, with its panel on College activities will be held Friday, February 27. Sessions on February 26 and 27 will take place at the Hotel Vancouver. The third day's meetings will move to Vancouver General Hospital.

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INTENSIVE POSTGRADUATE COURSES
STARTING DATES—FALL, 1958

SURGERY—Surgical Technic, Two Weeks, September 29, October 27.
Surgery of Colon & Rectum, One Week, September 22, October 27.
Basic Principles in General Surgery, Two Weeks, October 13.
Gallbladder Surgery, Three Days, November 3.
Surgery of Hernia, Three Days, November 6.
General Surgery, Two Weeks, November 10; One Week, October 27.
Fractures & Traumatic Surgery, Two Weeks, December 1.
American Board Review Course, Two Weeks, November 10.
Blood Vessel Surgery, One Week, October 20.

GYNECOLOGY & OBSTETRICS—
Office & Operative Gynecology, Two Weeks, October 13.
Vaginal Approach to Pelvic Surgery, One Week, October 6.
General & Surgical Obstetrics, Two Weeks, October 27.

MEDICINE—General Review Course, Two Weeks, October 20.
Electrocardiography, Two-Week Basic Course, October 6.
Gastroscopy & Gastroenterology, Two Weeks, November 3.
American Board Review Course, One Week, September 29.
(Oversubscribed—Available again in Spring, 1959)

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, November 3.

UROLOGY—Two-Week Intensive Course, October 13.
Ten-Day Practical Course in Cystoscopy by appointment.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, December 1.
Clinical Uses of Radioisotopes, Two Weeks, September 29.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

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American Association of Medical Assistants To Hold Second Annual Meeting in Chicago

Physicians are asked to bring to the attention of their assistants the Second Annual Meeting of the American Association of Medical Assistants. The group meets October 31, November 1 and 2, 1958, at the Palmer House, Chicago.

Friday, October 31, will be devoted to a house of delegates meeting, general business session, advisors' symposium, tour of the AMA Building and a program of speakers, films and exhibits furnished by AMA and presented in the AMA auditorium. F. J. L. Blasingame, general manager of AMA, will give the welcome and Morris B. Fishbein will be the dinner speaker.

Program for Saturday has been divided into three special sections listed as: business, technical and medical. These sections will run concurrently. Business session will include talks and demonstrations on insurance, office machines, credit, record forms, telephone techniques and banking. Subjects to be discussed during the medical session are: emergencies, medicolegal problems, case histories, good housekeeping and personal grooming, civil defense and public relations. Technical presentations scheduled are as follows: new laboratory procedures; new developments in x-ray; inner office professional ethics; ECG ultrasonic and diathermy; aseptic techniques. In addition, a talk on What Is Good Practice for the Physician and Medical Assistant will be given by Raleigh Oldfield, president, Illinois Medical Society.

The meeting will close at Sunday noon following a morning brunch.

Registration fee of $18 should be made payable to the American Association of Medical Assistants and mailed to: Mrs. Mary S. Aird, 1749 West 97th St., Chicago 43, Illinois. Hotel reservations should be made directly with the Palmer House.

Life Insurance Medical Research Fund Awards Grants for Heart Research

The Life Insurance Medical Research Fund has given 81 awards totalling $1,098,680 in support of heart research during the coming year. Fifty-seven of the awards are in the form of grants to research institutions for specified projects in basic heart research and four of these grants, for a total of $70,620, have been awarded to the two medical schools in the Northwest.

The University of Oregon Medical School has received $17,600 for research by William D. Blake on neurohumoral control of kidney function. Grants given to the University of Washington School of Medicine are: $21,120 for research by H. Stanley Bennett on the fine structure of blood and lymphatic vessels, $17,600 to support research by Frank M. Huennekens on one-carbon metabolism, and $14,300 for research by Robert E. Priest on the action of hormones on blood vessel walls, and the prevention of atherosclerosis.

Organized in 1946 by a group of life insurance companies, the Life Insurance Medical Research Fund has devoted its entire resources to study of heart disease. Each year the fund allocates more than one million dollars for heart research. The fund receives its support from about 150 life insurance companies in the United States and Canada.



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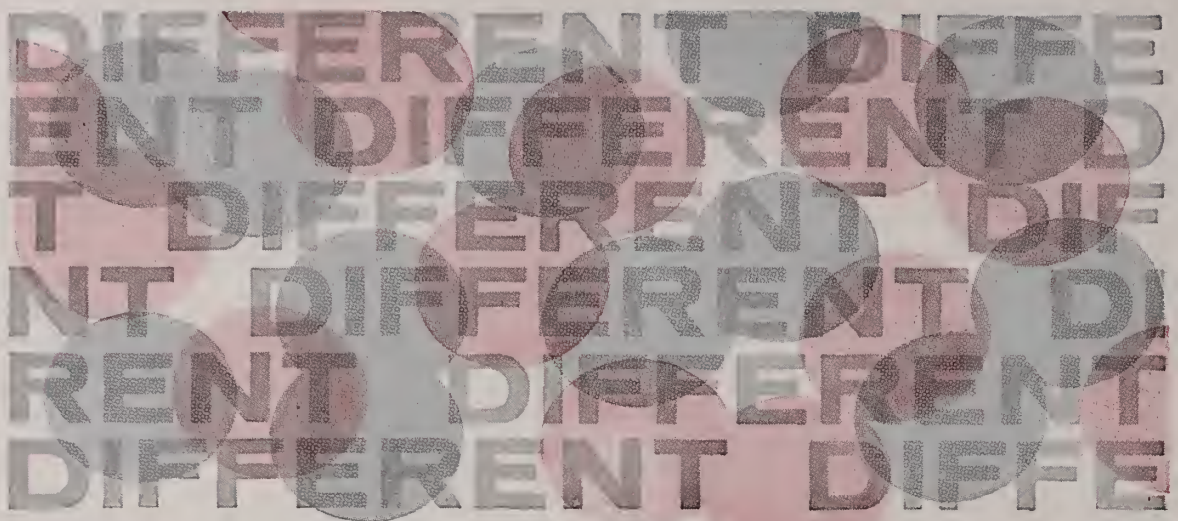
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Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.

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Report from the Washington Office of AMA

WASHINGTON, D.C. — The civilian Medicare program is struggling through an uncomfortable period of readjustment while attempting to cut its costs by about 30 per cent.

Had the program continued the way it was operating last year, the cost this year would be an estimated $100 million. Instead, the Defense Department, on the urging of Congress, is attempting to keep the costs within the appropriated $70.2 million.

No one can estimate as yet actually what is being saved. Some services that previously were authorized in civilian hospitals and from civilian doctors have been eliminated, thus shifting these costs from the government to the service families. At the same time many dependents who had been cared for outside the military now are required to go to the service hospitals.

If they do not like what is happening, there is not much the Medicare administrators, the doctors and the hospitals can do about it, at least not until the new Congress meets next January. Then, if situation is out of hand and there is widespread discontent among the service families, the problem could be returned to the lap of Congress.

Awkward as are the restrictions in some areas, the situation could have been much worse. The House originally proposed only $60 million for the civilian program, and ordered the Defense Department not to exceed that figure. In the Senate, Senator Knowland (R., Calif.) sponsored an amendment increasing the total to $70.2 million, and lifting the ceiling on spending. The Knowland proposal was approved.

The conference committee accepted the Senate changes, but in its report on the bill instructed the department to stay within he $70.2 million. This the department is attempting to do, but if the figure has to be exceeded for good reasons, the department would have to shift funds or ask for a supplemental appropriation and explain the need.

If the ceiling had been kept in the bill itself, the department could not have spent a penny more than the $60 million.

Here are the major restrictions, as outlined by the department to a meeting of Medicare contractor representatives:

- Dependents living with their sponsors to use military facilities, unless the military authorities certify that civilian care is necessary because service facilities are not available. Dependents not living with sponsors to have freedom of choice of military or civilian medicine, as now.
- In maternity cases, if the patients are living apart from sponsors, they will continue to have freedom of choice. If living with sponsors, new patients or those in the first trimester must use service facilities if available. Those in the second and third trimester, if under civilian care October 1, may continue, but if for any reason they change doctors, military facilities must be used if available.
- The new regulations also discontinue all services "not clearly specified in the law" for all dependents. The eliminated services include medical care ordinarily rendered on an outpatient basis, acute emotional disorders, and elective surgery. Emergency care may be obtained from civilian sources without prior authorization.
- Where more than one service facility is located in the area, a military clearing house will screen dependents and hospitals to insure that all service hospitals are used "to the optimum."

* * *

Congress has received a variety of advise on what to do about the hospitalization of veterans now and in the years ahead. Everybody seems to agree that 20 to 30 years from now will see a sharp increase in the number of non-service-connected disabilities among the veteran population. The question then is how many of these cases should be taken care of by the federal government.

During hearings by the House Veterans Affairs Committee, Russell B. Roth, chairman of the American Medical Association Committee on Federal Medical Services, reiterated the AMA stand that service-connected cases should receive best care possible in VA facilities and that non-service-connected illness should be the responsibility of state and local governments, if the veteran is unable to pay for his care.

(Continued on page 1208)

(Continued from page 1207)

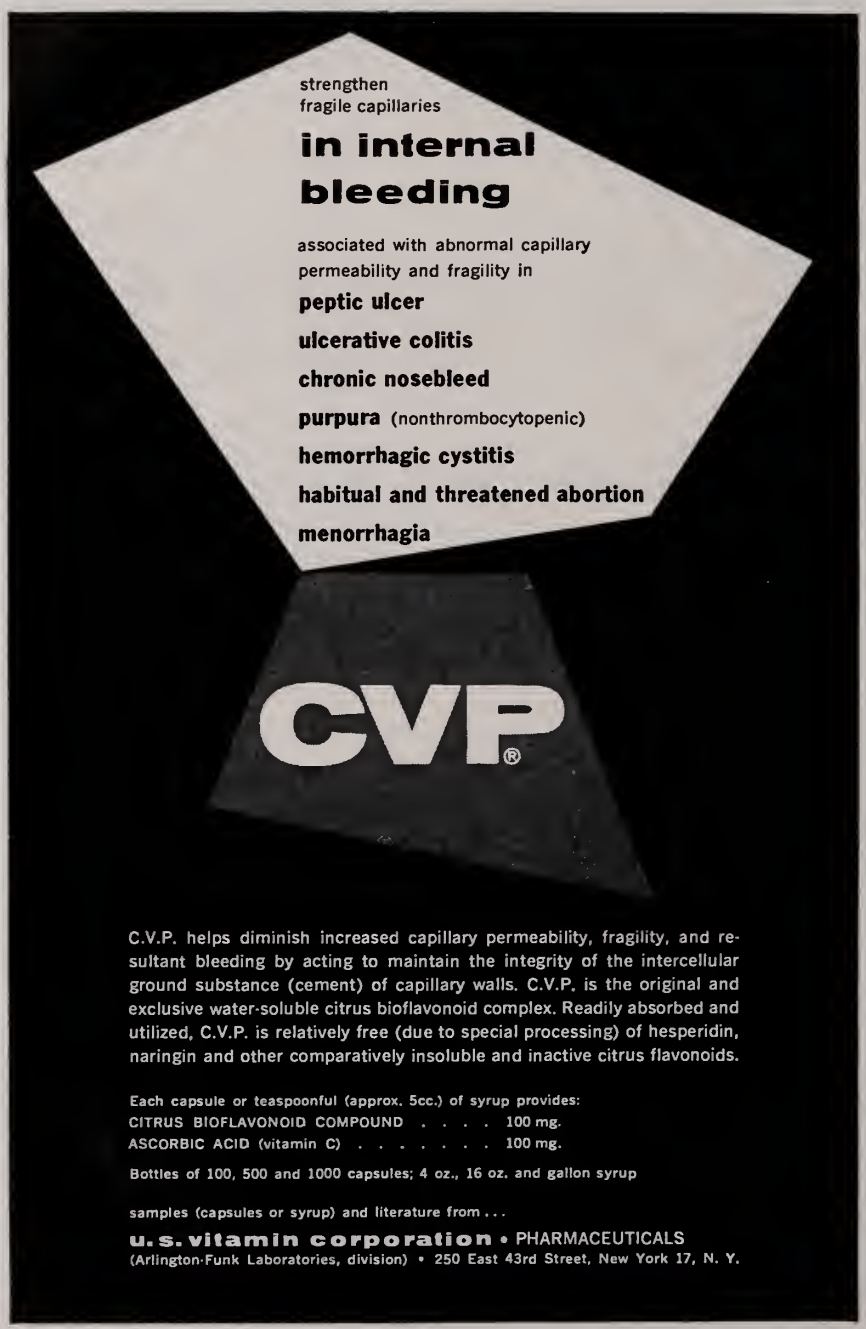
Before adjourning, the House Committee introduced a bill that did little to clear up the issue of non-service-connected care. It was aimed rather at the Budget Bureau in an effort to assure that some 5,000 beds now closed because of "administrative decisions" would be placed in use—presumably for non-service-connected cases.

° ° °

Note:

A group of physicians, research executives and a former director of the Budget Bureau has concluded that the nation should treble its expenditures for medical research and double its annual output of physicians, all in the next 12 years. The consultants' group to the Secretary of Health, Education, and Welfare proposes that the federal government supply about half a billion dollars by 1970, with an equal amount to come from industry and philanthropy. Head of the study group was Stanhope Bayne-Jones, former dean of the Yale medical school.

William J. Kennard, M.D.



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REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Walch, E.: Dent. Med. Wschr. (April) 1956. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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In medical student volunteers, 'Deaner' produced increased daytime energy and attentiveness at lectures, sounder sleep (with a reduction in the hours of sleep needed), better ability to concentrate on both studying and writing, decreased apprehensiveness prior to and during examinations, a more affable mood and outspoken personality.

1. Murphree, H. B., Jr.; Jenney, E. H., and Pfeiffer, C. C.: 2-Dimethylaminoethanol as a Central Nervous System Stimulant, Presented before Assoc. for Research in Nervous and Mental Disease, New York, Dec. 12-14, 1957. To be published.

In Exhaustion and Depression—In a study of over 100 patients suffering from various psychiatric disorders, especially exhaustion and mild depression, the clinical effect of 'Deaner' was to increase energy and to relieve depression in over 70%.

2. Lemere, F., and Lasater, J. H.: Am. J. Psychiat. *114*:655 (Jan.) 1958.

In Learning Problems—Some of the children with reading problems and other learning defects have improved markedly during their treatment with 'Deaner'.

3. Oettinger, L., Jr.: Presented before the American Encephalographic Society Meeting, Atlantic City, June 14, 1958. To be published.

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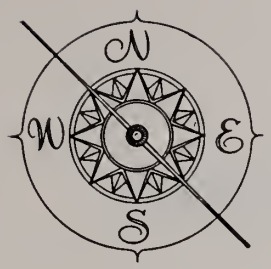
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BOOKS

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RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

The Medical Assistant—A Guidebook for the Nurse, Secretary, and Technician in the Doctor's Office. By Miriam Bredow, Dean of Women, Eastern School for Physicians' Aides, New York. 430 pp. Illustrated. Price $7.50. McGraw-Hill Book Co., Inc., New York. 1958.

Atrial Arrhythmias, Digitalis and Potassium. By Bernard Lown, M.D., Research Associate in Medicine, Department of Nutrition, Harvard School of Public Health; Junior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Mass.; and Harold D. Levine, M.D., Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Mass.; Assistant Clinical Professor of Medicine, Harvard Medical School. 222 pp. Illustrated. Price $6.90. Landsberger Medical Books, Inc., New York. 1958.

Illustrated Preoperative and Postoperative Care. By Philip Thorek, M.D., F.A.C.S., F.I.C.S., Professor of Surgery, Cook County Graduate School of Medicine; Clinical Associate Professor of Surgery, University of Illinois College of Medicine; Diplomate of American Board of Surgery; Co-Surgeon in Chief of American Hospital; Attending Surgeon of Cook County Hospital; Member of American Association of Anatomists; Fellow of American College of Chest Physicians. Drawings by Carl T. Linden, Assistant Professor of Medical Illustration, University of Illinois School of Medicine. 98 pp. Price $5.00. J. B. Lippincott Co., Philadelphia. 1958.

The Physiology and Pathology of the Cerebellum. By Robert Stone Dow, M.D., Ph.D., Associate Clinical Professor of Medicine (Neurology), University of Oregon Medical School; and Giuseppe Moruzzi, M.D., Professor and Head, Institute of Physiology, University of Pisa. 675 pp. Illustrated. Price $12.50. University of Minnesota Press, Minneapolis. 1958.

Etiology and Treatment of Leukemia; Proceedings of the First Louisiana Cancer Conference. Edited by Walter J. Burdette, Ph.D., M.D., F.A.C.S., Professor and Head of Department of Surgery and Director of the Laboratory of Clinical Biology, University of Utah College of Medicine; Surgeon-in-Chief, Salt Lake County Hospital; Chief Surgical Consultant, Veterans Administration Hospitals, Salt Lake City, Utah. 167 pp. Illustrated. Price $4.00. The C. V. Mosby Co., St. Louis. 1958.

How To Live with Diabetes. By Henry Dolger, M.D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York; and Bernard Seeman. 192 pp. Price $3.50. W. W. Norton & Co., Inc., New York. 1958.

The Care of the Patient in Surgery Including Techniques. Ed. 3. By Edythe Louise Alexander, R.N., B.S., M.A., Director of Nursing Service and Principal of the School of Nursing, Lutheran Medical Center, Brooklyn, N.Y.; Formerly Supervisor of Operating Rooms and Associate Director of Nursing Service at the Roosevelt Hospital, New York, N.Y.; Formerly Supervisor at Mountainside Hospital, Montclair, N.Y. and of the Private Pavilion Operating Rooms, New York Hospital, New York, N.Y. 840 pp. Illustrated. Price $12.75. The C. V. Mosby Co., St. Louis. 1958.

Diseases of the Esophagus. By J. Terracol, Professor of the Faculty of Medicine of Montpellier, France; and Richard H. Sweet, Associate Clinical Professor of Surgery, Harvard Medical School. 682 pp. Illustrated. Price $20.00. W. B. Saunders Co., Philadelphia and London. 1958.

Therapeutic Uses of Adhesive Tape. Ed. 2. 130 pp. Illustrated. Complimentary. Johnson & Johnson, New Brunswick, N. J. 1958.

(Continued on page 1214)

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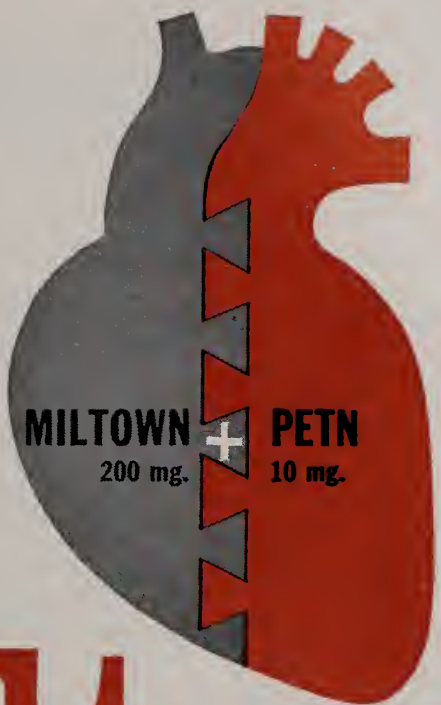
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(Continued from page 1211)

Medical Terminology Simplified. By Louis L. Perkel, B.S., M.D., F.A.C.P., Diplomate, American Board of Internal Medicine and Sub-specialty, Gastroenterology; Professor of Gastroenterology, Seton Hall College of Medicine, Jersey City, N.J.; Director, Department of Gastroenterology and The Intern and Resident Training Program, Jersey City Medical Center. Foreword by Charles L. Brown, M.D. F.A.C.P., Dean, Seton Hall College of Medicine, Jersey City, N.J. 103 pp. Price $3.85. Charles C. Thomas, Springfield, Ill. 1958.

Clinical Obstetrics and Gynecology, June 1958. Vol. I, No. 2: Toxemias of Pregnancy, Edited by Louis M. Hellman, M.D.; and Fibromyomas of the Uterus, Edited by Robert A. Kimbrough, M.D. 544 pp. Illustrated. Price $18.00 per year. Paul B. Hoeber, Inc., New York. 1958.

A Primer in Medical Technology. By Paul M. Kraemer, Department of Health and Hospitals, City and County of Denver, Colorado. 338 pp. Price $7.75. Charles C. Thomas, Springfield, Ill. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlomert, Librorian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

YOUR SPEECH REVEALS YOUR PERSONALITY. By Dominick A. Barbara, M.D. Foreword by Nolan D. C. Lewis. 174 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

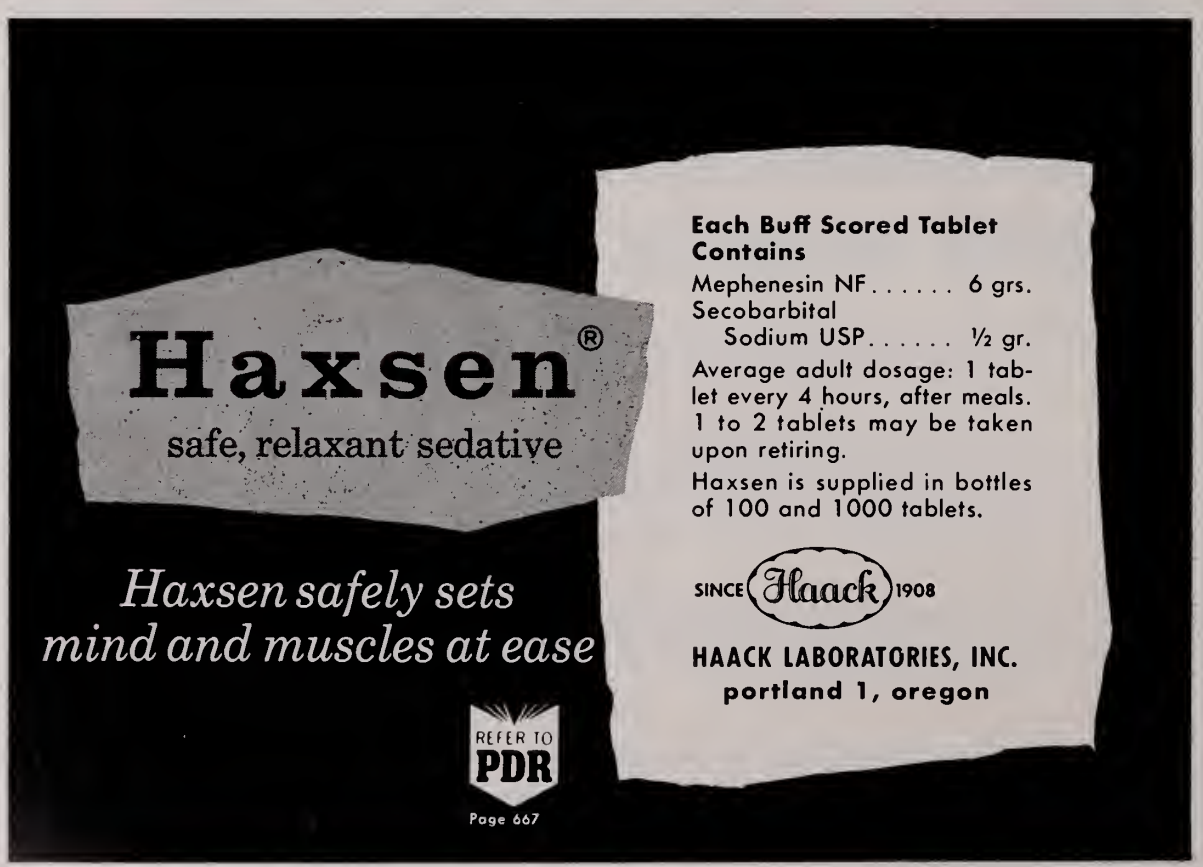
This short volume with an adulatory preface by Nolan D. C. Lewis is "intended to provide psychiatrists, speech teachers, psychologists, social workers and those interested in language and communication studies . . . a keener understanding of communicative behavior as it appears in everyday and clinical situations." The author, who has written an earlier monograph on stuttering, is attempting to broaden his horizon by correlating his knowledge of language structure and semantics with his clinical and theoretic orientation as a disciple of the Adlerian-Horney culturalistic branch of psychoanalytic thought.

The first section of the book, dealing with language structure and symbols, concerns a subject foreign to most clinicians in the psychiatric field. The author is to be commended for providing a brief introduction to a difficult and often "dry" subject in an informal and interesting way. In the longer second section, entitled Speech and Personality, there is an attempt to separate types of speech disturbance with neurotic personality types (The Voice of the Timid, The Master's Voice, The Expansive Speaker and The Resigned Speaker). He ends up concentrating on the need in our culture for a simplified language and drives home his thesis that as neurosis is relieved through psychotherapy and the individual comes to really know himself, his inner comfort and increased reality awareness are reflected in more direct, simple and accurate speech.

Perhaps in part because of the confines of the author's basically Adlerian orientation, he ends up with an over-expansive, over-simplified view that limits the clinical usefulness of the book.

George H. Allison, M.D.

(Continued on page 1233)





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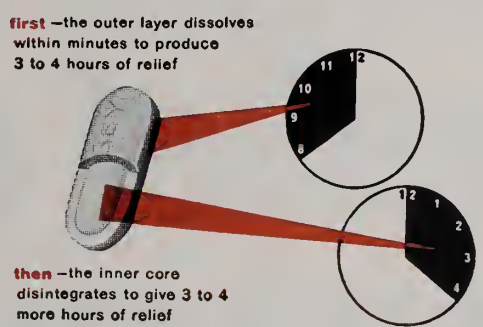
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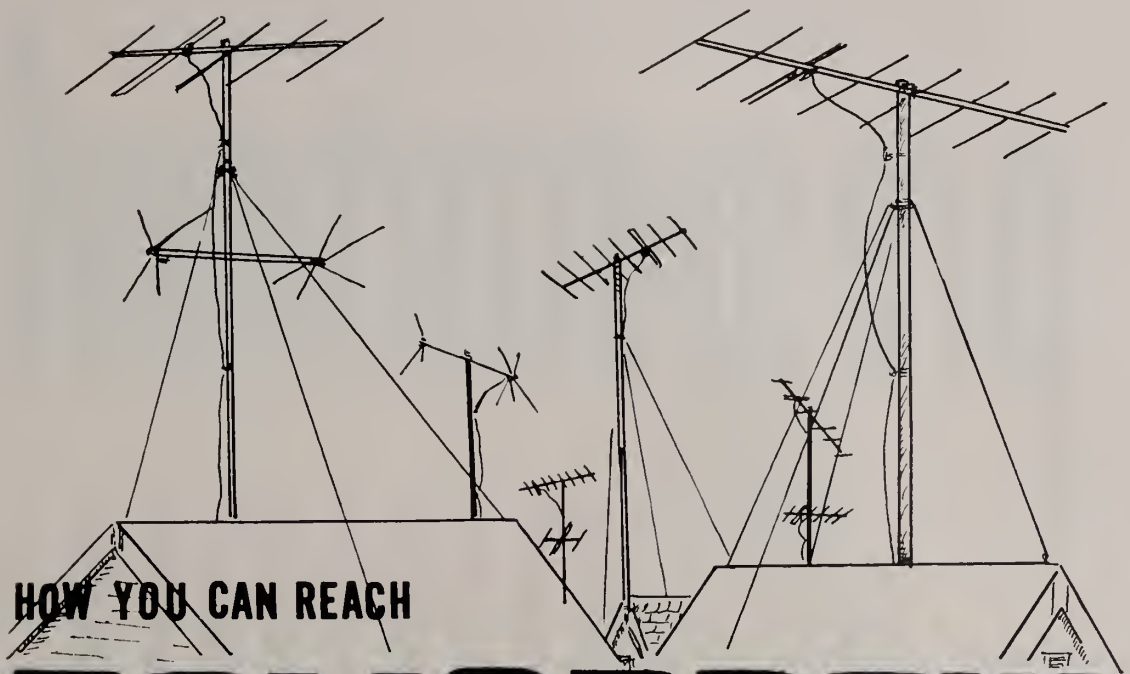
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1. Chamberlain, D. T.: Gastroenterology *17*:224, 1951. 2. Hock, C. W.: J.M.A., Ga. *43*:124, 1951. 3. Derome, L.: Canad. M.A.J. *69*:532, 1953. 4. Cholst, M., Goodstein, S., Berens, C., and Cinotti, A.: J.A.M.A. *166*:1276, 1958.

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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

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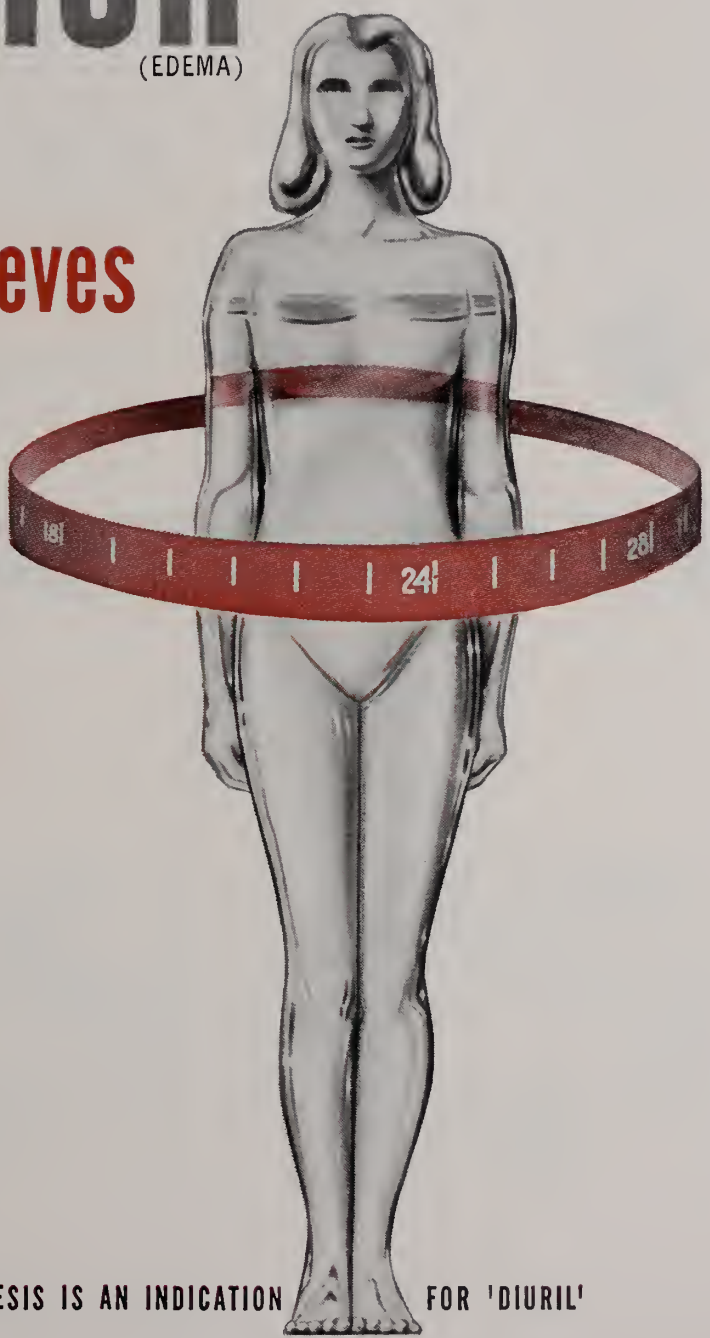
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IN ACNE

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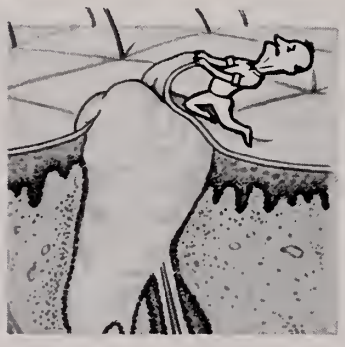


Fostex contains a combination of surface active agents (Sebulytic*) which:

◂ Completely emulsify excess oil so that it is quickly washed off the skin.



◂ Penetrate and soften comedones, unblocking the pores and facilitating removal of sebum plugs.



Fostex dries and peels the skin

◂ The Sebulytic base of Fostex dries and promotes peeling of the skin . . . actions enhanced by the keratolytic effects of micropulverized sulfur and salicylic acid.

*(Sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate, sodium dioctyl sulfosuccinate.)

FOSTEX CREAM
for therapeutic washing of skin in the initial phase of acne treatment, when maximum degreasing and peeling are desired.

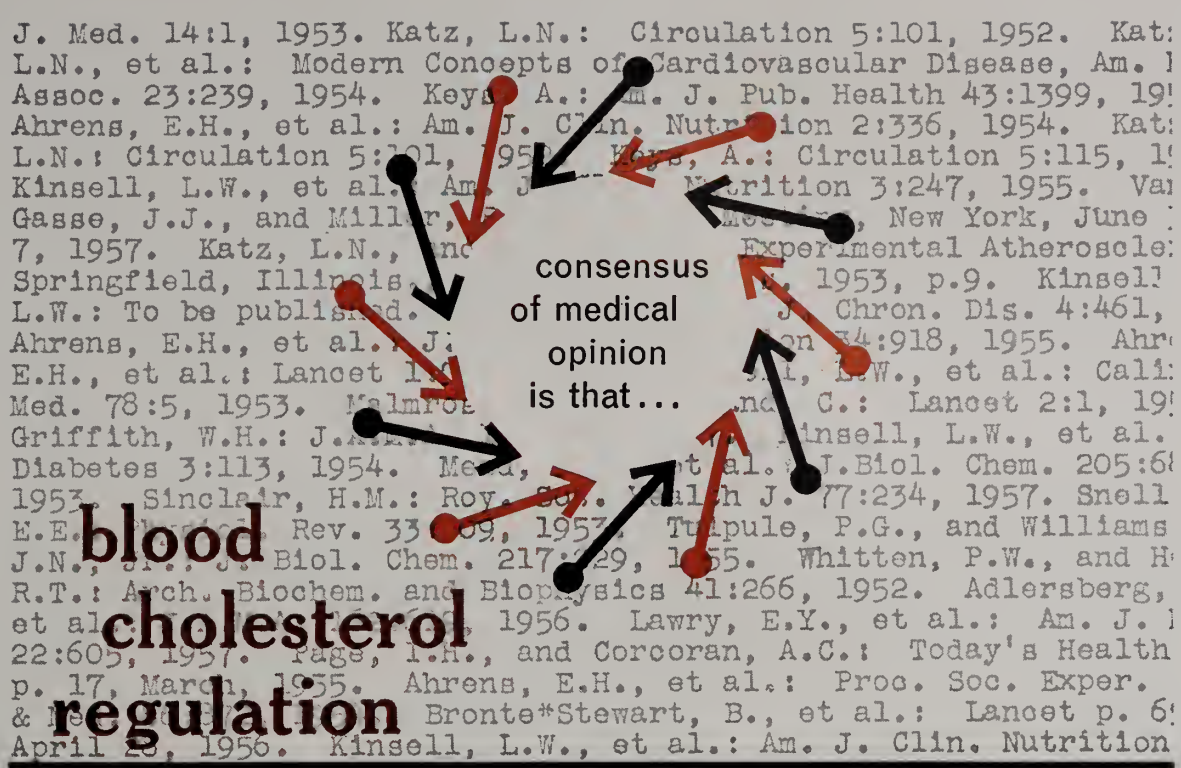
FOSTEX CAKE
for maintenance therapy to keep skin dry and substantially free of comedones.



Fostex is easy for your patients to use

◂ Patients stop using soap on affected skin areas. Instead they use Fostex for therapeutic washing of the skin. The Fostex lather is massaged into the skin for 5 minutes—then rinse and dry.

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is desirable

That elevated blood cholesterol levels can be readily reduced or prevented by the addition to the diet of various vegetable fats containing linoleic acid has been observed by numerous investigators. It also appears that diets rich in essential fatty acids are much more effective in lowering plasma-lipid levels than are the low-fat (high-carbohydrate) diets.

Arcofac, a nutritional supplement, contains linoleic acid, an essential polyunsaturated fatty acid in high concentration. In addition, it also provides vitamin B_6, deemed necessary for conversion of linoleic acid into the primary essential fatty acid, arachidonic acid. The body apparently is dependent upon an adequate intake of both linoleic acid and vitamin B_6 for normal cholesterol levels. The presence of vitamin E, a powerful antioxidant, helps maintain the fatty acids in an unsaturated state.

The Arcofac regimen is safe . . . effective . . . well tolerated . . . and imposes no radical changes in diet. Virtually all foods (including animal fats) may be eaten, if a proper balance is maintained between saturated and unsaturated fatty acids. Prophylactic dosage is 1–2 tablespoonfuls daily; therapeutic—2–8 tablespoonfuls daily.

Each tablespoonful (15 ml.) of Arcofac emulsion contains:

Essential fatty acids†.....6.8 Gm.
(measured as linoleic) with 2.5 I.U. of Vitamin E*

Pyridoxine hydrochloride
(Vitamin B_6).....1.0 mg.

†Supplied by safflower oil which contains the highest concentration of polyunsaturated fatty acids of any commercially available vegetable oil.

*Added as Mixed Tocopherols Concentrate, N.F.

Arcofac® Armour Cholesterol Lowering Factor

References on request

THE ARMOUR LABORATORIES A DIVISION OF ARMOUR AND COMPANY • KANKAKEE, ILLINOIS



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Primarily by regulation of bicarbonate transport	DIAMOX acetazolamide
Primarily by regulation of chloride transport	mercurials chlorothiazide

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*Reg. U. S. Pat. Off.

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1

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2

Advantages of DIAMOX in intensive, two-drug diuresis

When intensive diuresis must be maintained, DIAMOX, alternated with an agent for regulation of *chloride* transport, has proved a regimen of choice. Through dual *bicarbonate-chloride* regulation, it produces maximal sodium-water excretion with minimal distortion of serum electrolyte patterns, greater patient comfort, lessened risk of induced drug resistance.

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Methylcellulose (mucin-like colloid) . . . . 1 gr. (0.065 Grom)

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– the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

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Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1,2,5,6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL
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"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

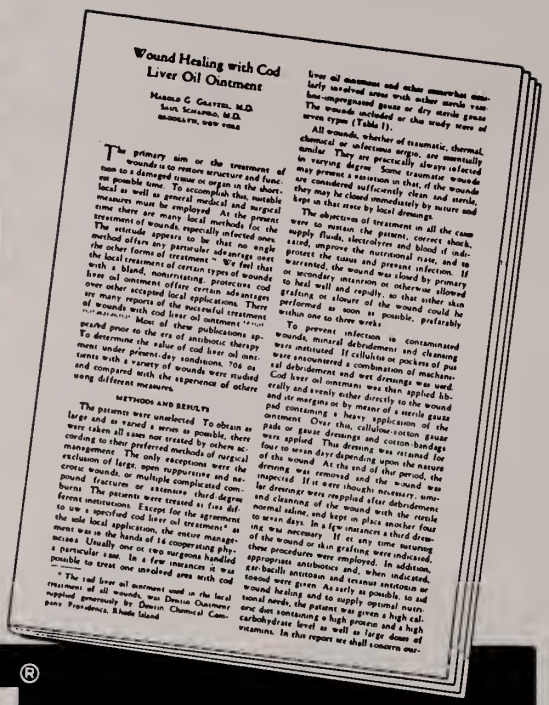
"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

16 surgeons

participated in these

new extensive studies[1]

demonstrating that



Wound Healing with Cod Liver Oil Ointment

MARIUS G. GRAYZEL, M.D.
SAUL SCHAPIRO, M.D.
BROOKLYN, NEW YORK

The primary aim or the treatment of wounds is to restore structure and function to a damaged tissue or organ in the shortest possible time. To accomplish this, suitable local as well as general medical and surgical measures must be employed. At the present time there are many local methods for the treatment of wounds, especially infected ones. The attitude appears to be that no single method offers any particular advantage over the other forms of treatment. We feel that the local treatment of certain types of wounds with a bland, nourishing, protective cod liver oil ointment offers certain advantages over other accepted local applications. There are many reports of the successful treatment of wounds with cod liver oil ointment [illegible]. Most of these publications appeared prior to the era of antibiotic therapy. To determine the value of cod liver oil ointments under present-day conditions, 706 cases were studied and compared with the experiences of others using different measures.

METHODS AND RESULTS

The patients were unselected. To obtain as large and as varied a series as possible, there were taken all cases not treated by others according to their preferred methods of surgical management. The only exceptions were the exclusion of large, open suppurative and necrotic wounds, or multiple complicated compound fracture or extensive third-degree burns. The patients were treated in five different institutions. Except for the agreement to use a specified cod liver oil treatment as the sole local application, the entire management was in the hands of 16 cooperating physicians. Usually one or two surgeons handled a particular case. In a few instances it was possible to treat one involved area with cod liver oil ointment and other somewhat similarly involved areas with other sterile treatment. The cod liver oil ointment used in the local treatment of all wounds was Desitin Ointment, supplied generously by Desitin Chemical Company, Providence, Rhode Island.

liver oil ointment and other somewhat similarly involved areas with other sterile treatment. The cod liver oil ointment used in the local treatment of all wounds was Desitin Ointment, supplied generously by Desitin Chemical Company, Providence, Rhode Island. Vaseline-impregnated gauze or dry sterile gauze. The wounds included or the study were of seven types (Table 1).

All wounds, whether of traumatic, thermal, chemical or infectious origin, are essentially similar. They are practically always infected in varying degree. Some traumatic wounds may present a contusion in that, if the wounds are considered sufficiently clean and sterile, they may be closed immediately by suture and kept in that state by local dressings.

The objectives of treatment in all the cases were to sustain the patient, correct shock, supply fluids, electrolytes and blood if indicated, improve the nutritional state, and to protect the tissue and prevent infection. If warranted, the wound was closed by primary or secondary intention or otherwise allowed to heal well and rapidly, so that either skin grafting or closure of the wound could be performed as soon as possible, preferably within one to three weeks.

To prevent infection in contaminated wounds, mineral debridement and cleansing were instituted. If cellulitis or pockets of pus were encountered a combination of mechanical debridement and wet dressings was used. Cod liver oil ointment was then applied liberally and evenly either directly to the wound and its margins or by means of a sterile gauze pad containing a heavy application of the ointment. Over this, cellulose-cotton gauze pads or gauze dressings and cotton bandages were applied. This dressing was retained for four to seven days depending upon the nature of the wound. At the end of this period, the dressing was removed and the wound was inspected. If it were thought necessary, similar dressings were reapplied after debridement and cleansing of the wound with the sterile normal saline, and kept in place another four to seven days. In a few instances a third dressing was necessary. If at any time suturing of the wound or skin grafting were indicated, these procedures were employed. In addition, appropriate antibiotics and, when indicated, parenteral antitoxin and tetanus antitoxin or toxoid were given. As early as possible, to aid wound healing and to supply optimal nutritional needs, the patient was given a high caloric diet containing adequate protein and a high carbohydrate level as well as large doses of vitamins. In this report we shall concern ourselves

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- **pressure sores and ulcers**
- **pilonidal cysts and sinuses**
- **ano-rectal wounds • chest wounds**





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1. Grayzel, H. G., and Schapiro, S.: Western J. Surgery, Obstet. & Gyn., Oct. 1956.

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Theabramine	5 grs.
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Theobromine	5 grs.
Phenabarbital	½ gr.
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Theobromine	4 grs.
Phenobarbital	¼ gr.
Potassium Iodide	2½ grs.
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Phenobarbital	½ gr.
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The Washington State Department of Institutions Northern State Hospital at Sedro Woolley has a full time vacancy for an Anesthetist (Physician II—salary range—$11,916-14,220). For full information on this Merit System position, contact: Washington State Personnel Board, 212 General Administration Building, Olympia, Wash.

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(Continued from page 1214)

DIABETES AS A WAY OF LIFE. By T. S. Danowski, M.D., Renziehausen Prcfessor of Research Medicine, University of Pittsburgh School of Medicine. 177 pp. Price $3.50. Coward-McCann, Inc., New York. 1958.

Dr. Danowski conducts the diabetic clinics at the University of Pittsburgh Medical Center, and he has written this book for patients, patients' families, nurses, dieticians and doctors. Since people, other than the doctor, provide an estimated 99 per cent of diabetic care, this book is a resource to them, as well as to the diabetic patients. It provides a discussion of the practical aspects of diabetes and diabetic care.

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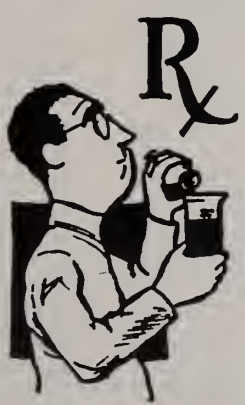
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American Medical Association ..... **Atlantic City, June 8-12, 1959**

Clinical Meetings
Minneapolis, Dec. 2-5, 1958 **Dallas, Dec. 1-4, 1959**

Oregon State Medicol Society ..... **Sept. 3-5, 1958, Portland**
Pres , V. W. Miller, Salem Sec., M. H. Parratt, Portland

Woshington State Medical Association .... **Sept. 14-17, 1958, Spokone**
Pres., M. T. Harris, Spokane Sec., F. A. Tucker, Seattle

Idaho State Medical Assaciation ..... **Sun Valley**
June 14-17, 1959 **June 15-18, 1960**
Pres., D. K. Warden, Lewistan Sec., M. D. Gudmundsen, Boise

Alaska Territorial Medical Association **1959**
Pres., H. B. Fate, Fairbanks Sec., R. B. Wilkins, Anchorage

Pacific Northwest Obstetrical and Gynecological Association .... **Banff**
July 20-24, 1959
Pres., A Agnew, Vancouver, B.C. Sec., C. L. Fearl, Portland

Pocific Northwest Society of Pathologists ..... **Priest Lake, Idaho**
Oct. 3-4, 1958
Pres., H. E. Taylor Vancouver, B.C. Sec., J. E. Hill, Spokane

OREGON

Oregon Academy of General Practice ..... **Portland, Oct. 16-17, 1958**
Pres., B. L. Trelstad, Salem

Oregan Academy af Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. through May), Henry Thiele's, Portland
Pres., D. de Weese, Portland Sec., P. Myer, Portland

Oregon Dermotologic Society ..... **Portland, Second Wednesday (Nov., Jan.-Apr.)**
Pres., T. S. Saunders, Portland Sec., L. F. Ray, Portland

Oregan Pathologists Assaciation—Second Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., H. Harris, Portland Sec., J. H. Lium, Portland

Oregon Radiological Society—Second Wednesday through schaol year—University Club, Portland
Pres., J. W. Laamis, Portland Sec., C. V. Allen, Portland

Oregon State Society of Anesthesiologists ..... **Portlond, Third Friday (except June, July, Aug.)**
Pres., C. H. Hagmeier, Portland Sec., D. P. Dabsan, Beavertan

Portland Academy of Hypnosis ..... **Third Monday (Sept.-May)**
Pres., D. Steffanaff Sec., H. Clagett Harding

Portland Academy of Pediatrics ..... **First Monday**
Pres., J. P. Whittemare Sec., L. H. Smith

WASHINGTON

Puget Sound Academy of Ophthalmology — Third Tuesday (Oct.-May)—Seattle or Tacoma
Pres., E. G. Darland, Seattle Sec., J. L. Hargiss, Seattle

Puyallup Valley Surgical Society ..... **Fourth Tuesday (Sept.-May)**
Pres., K H. Sturdevant, Puyallup Sec., V. M. Murphy, Sumner

Seattle Academy of Surgery ..... **Nov. 20, 1958**
Third Friday, Sept., Nov., Jan., Mar.
Pres., L. M. Penny Sec., D. D. Carlett

Seattle Gynecological Society ..... **Third Wednesday (except June, July, Aug., Dec., Feb.)**
Pres., P. G. Petersan Sec., L. B. Donaldsan

Seattle Pediatric Society ..... **Third Fridoy (Sept.-May), College Club**
Pres., Paul Betzald Sec., C. Razgay

Seattle Surgical Society ..... **Jan. 30-31, 1959**
Fourth Monday, Sept.-May
Pres., W. E. Watsan Sec., W. O. Mills

Spokane Academy af General Practice ..... **Dec. 6, 1958**
Pres., D. W. McKinlay Sec., R. H. Ganz

Spokane Society of Internal Medicine ..... **April 10, 1959**
Pres., O. C. Olsan Sec., R. P. Parker

Spokane Surgical Society ..... **April 11, 1959**
Pres., R. H. Humphreys Sec., E. B. Caulter

Tacomo Academy of Internal Medicine ..... **March 14, 1959**
Pres., R. E. Lane Sec., R. F. Barranian

Tocoma Surgical Club ..... **Moy 2, 1959**
Pres., E. R. Andersan Sec., D. Staatz

Washington Academy of General Practice, Longview, May 10-12, 1959
Pres., D. Fritz, Cathlamet Sec., J. E. Gahringer, Jr., Wenatchee

Washington State Obstetricol Association .... **Spokane, Oct. 11, 1958**
Pres., G. G. Rice, Seattle Sec., D. M. McIntyre, Seattle

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Fourth Monday of eoch month, Sept. through Moy
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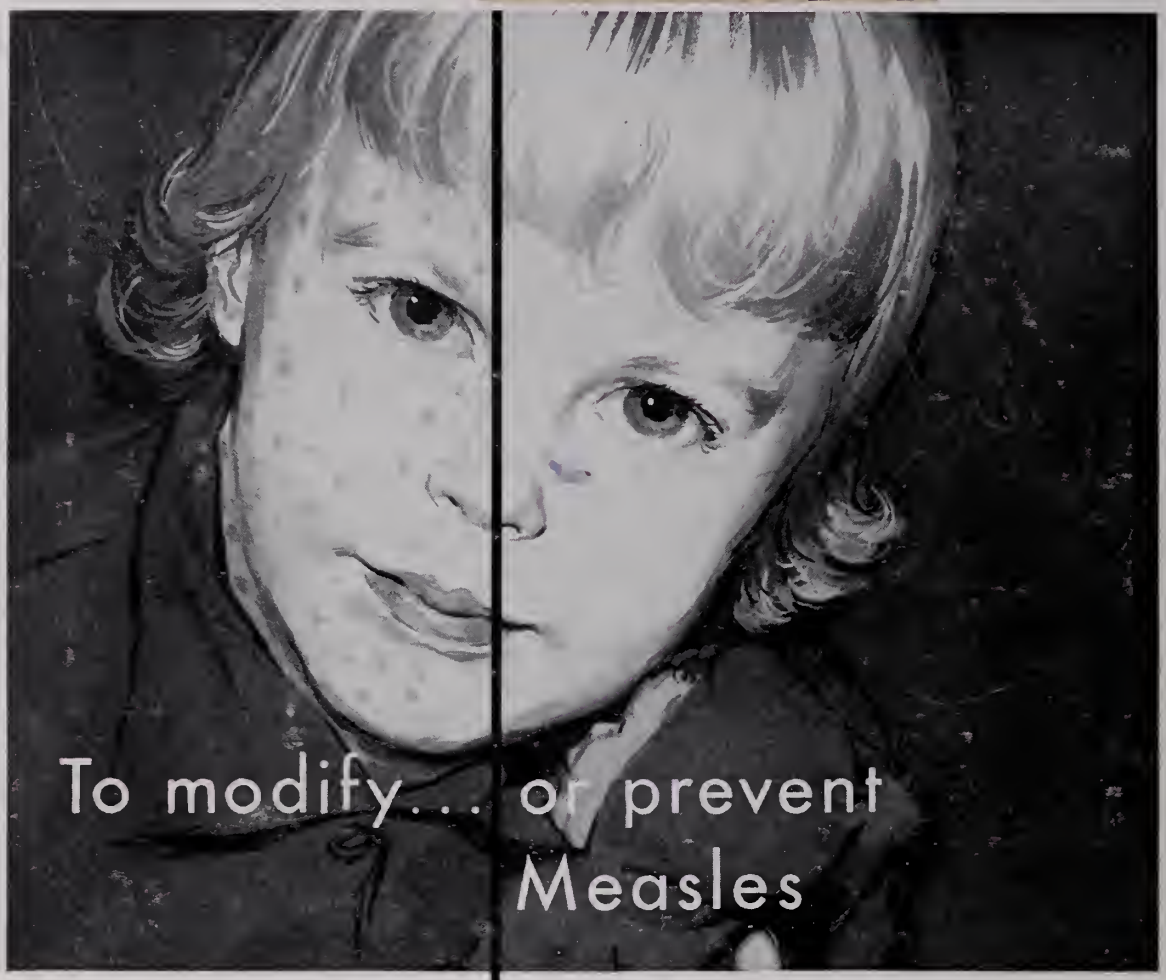
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VOLUME 57, NUMBER 10
OCTOBER, 1958

NORTHWEST MEDICINE



This month

FIBROMA OF DIAPHRAGM

TENDON INJURIES IN THE HAND

TREATMENT OF ANKLE INJURIES

SURGICAL INJURIES OF THE URETERS

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FACTORS INFLUENCING EXCRETION OF SALT AND WATER

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EGON ☆ WASHINGTON ☆ IDAHO ☆ ALASKA

in amenorrhea . . .

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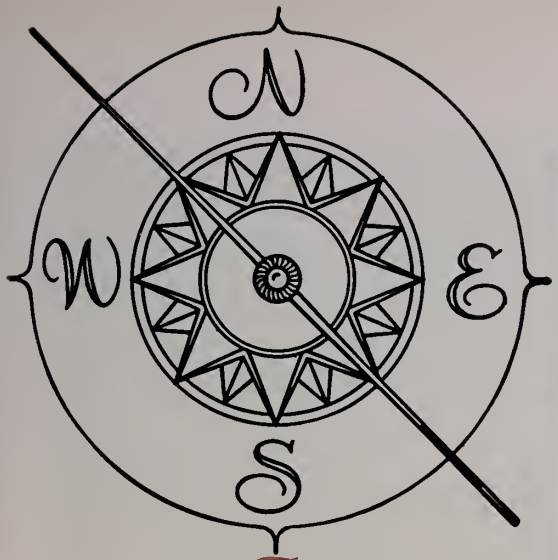
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1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

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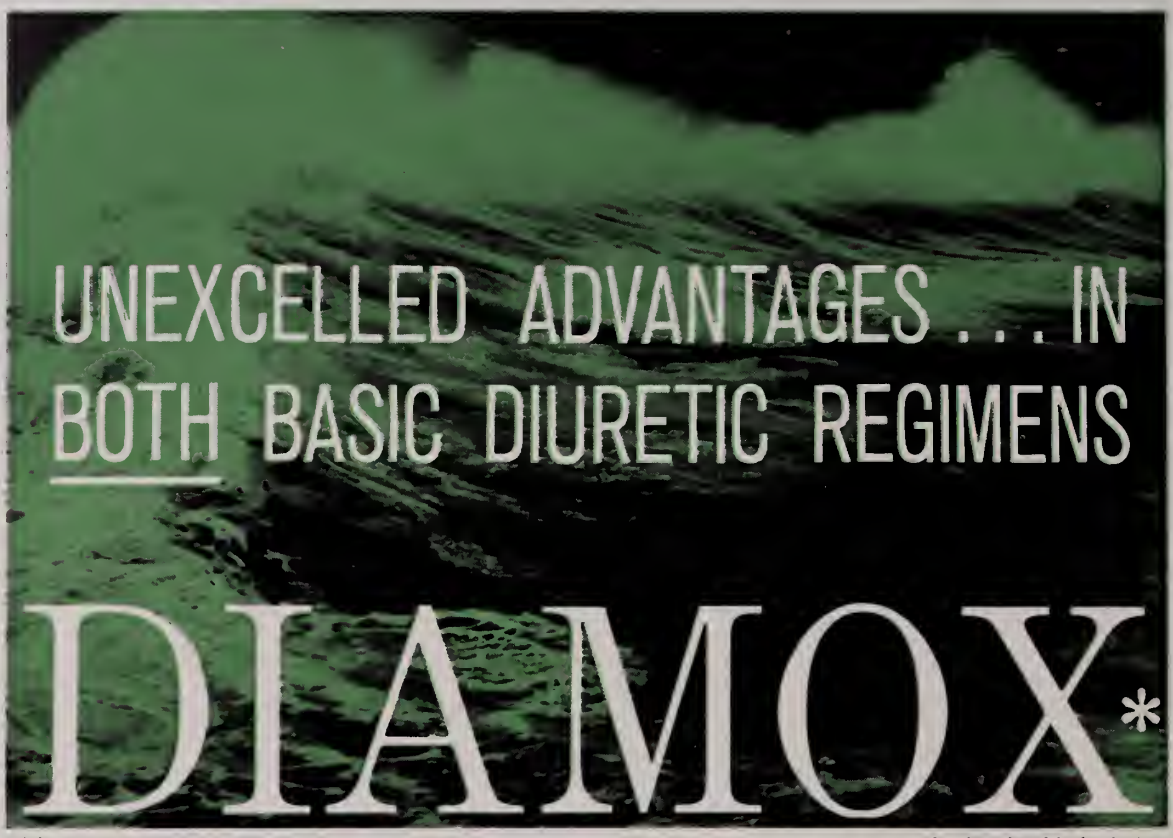
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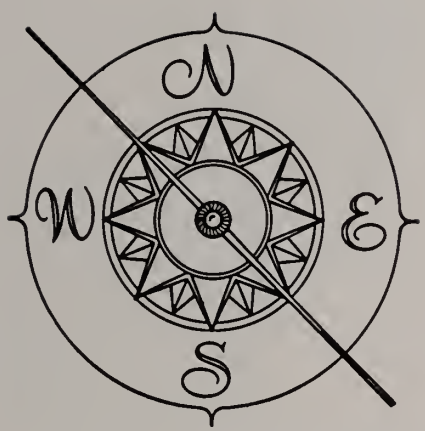
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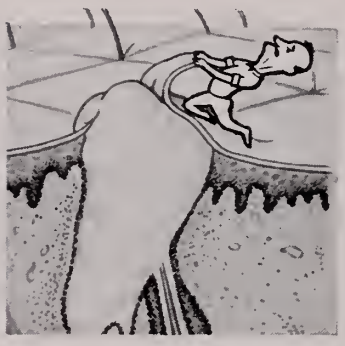


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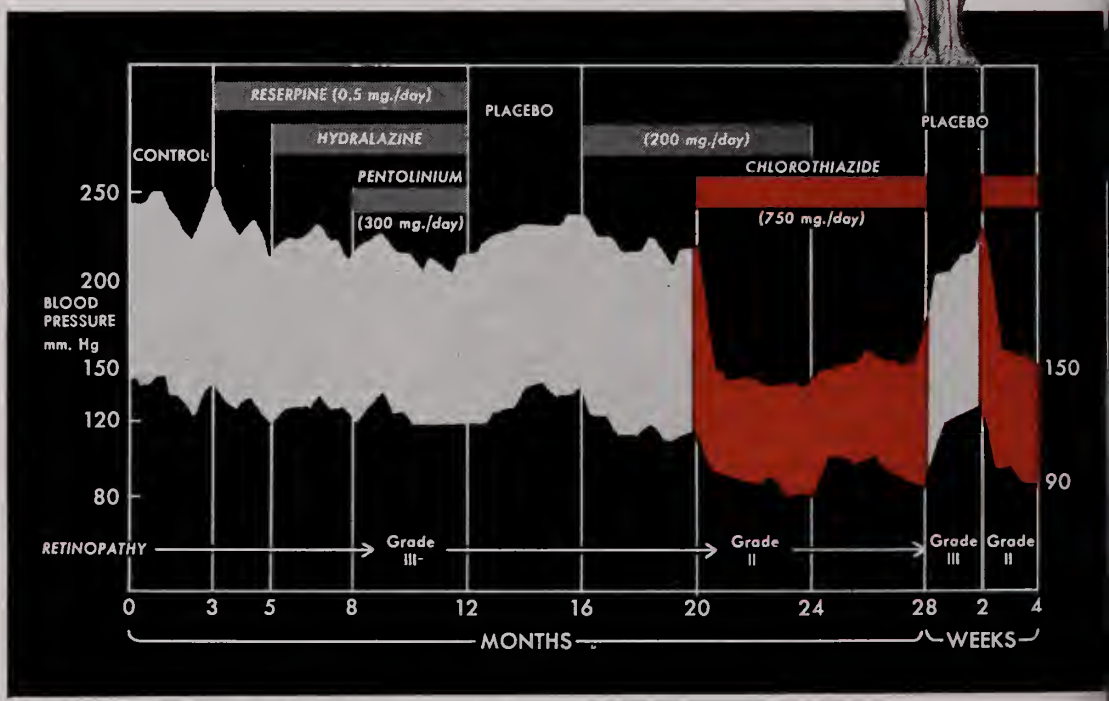
Wilkins, R. W.: New England J. Med. **257**:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."



Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166**:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. **8**: 1, September, 1957.

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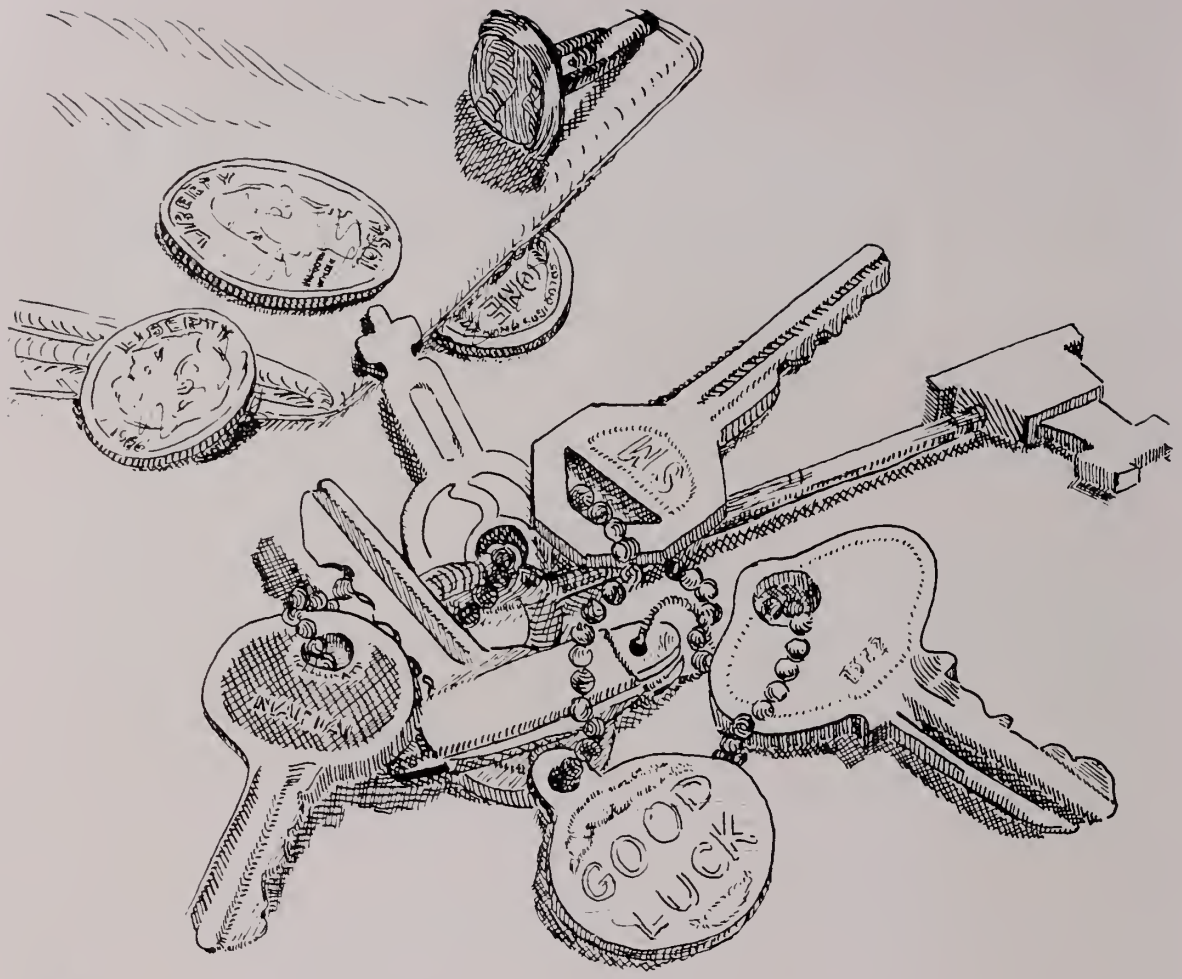
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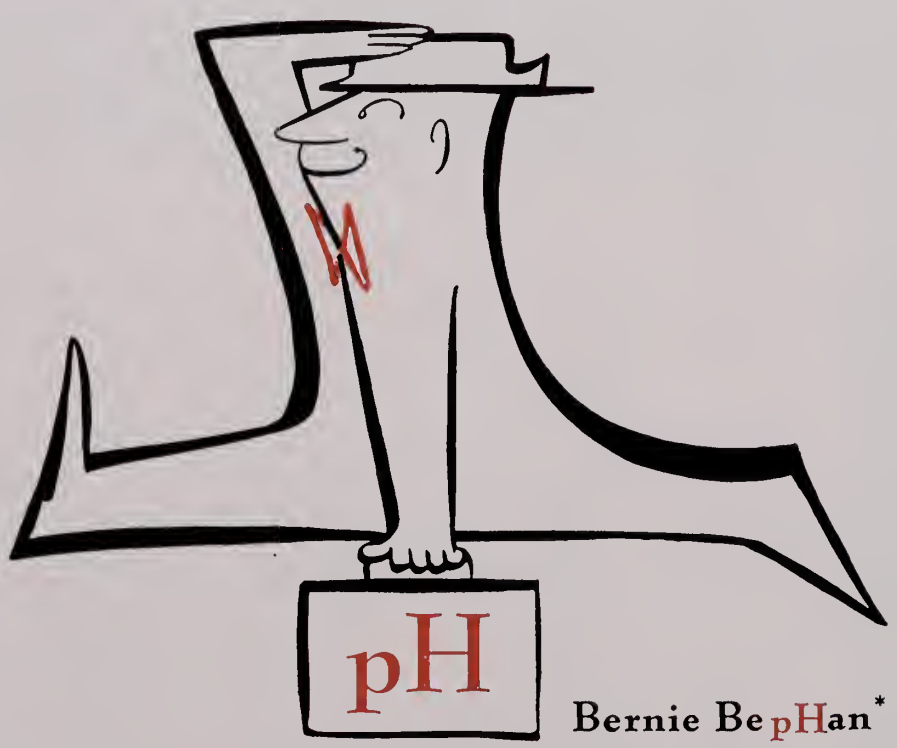
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Supplement
Page 42

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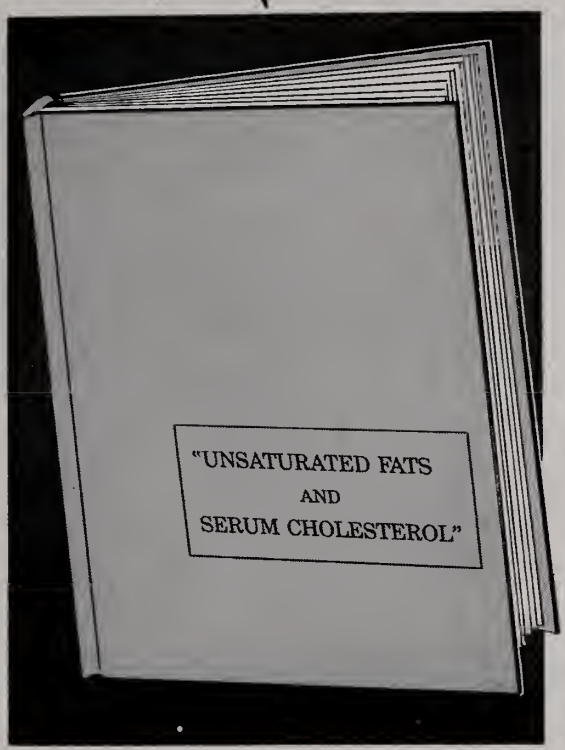
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 10
OCTOBER, 1958

EDITORIAL

Return to a Drastic Code

Hammurabi, king and lawgiver to the Babylonians four thousand years ago, wrote into his code some harsh rules about the practice of physicians. Experience and time eliminated them but the courts and a few attorneys seem bent upon re-establishing a code almost as harsh, financially if not physically. The harm caused by some courts is just as devastating. The destructive influence is not confined to verdicts but extends to suits filed but never tried, no matter how baseless they may be. Against much of this there is no protection. The problem is growing.

In discussing the matter at a meeting in Washington, D.C., last March, Mr. C. Joseph Stetler, director of AMA legal department, said, "If the present trend continues and if a physician must become increasingly apprehensive of legal suits, his own defensive instinct will inevitably, in some measure, overcome his humanitarian and professional motivations. Such a doctor will be inclined to give too much time to protecting himself and less to the care of his patient."

Apprehension is not lessened by a decision handed down by the Court of Appeals in the State of New York. In this case there was award not only for physical injury claimed to have been sustained at the hands of a physician, but also for mental anguish over something which *might* have happened. Dissenting justices pointed out the danger of the prevailing decision which awarded the plaintiff $10,000 for a scar and $15,000 for worry about the possibility of contracting cancer. Their opinion was that "legal responsibility for an injury may not include mental suffering in contemplation of injuries which may never develop out of those already suffered, based upon a doctor's statement as to mere possible developments." It was unfortunate that they were outvoted.

Two years ago suit was filed in this area against a surgical partnership practice. It had no merit and was withdrawn after the plaintiff's third attorney finally agreed with those who had preceded him, that it could not be won. In the intervening months, however, health of the partners was all but ruined by sleepless nights, worried days and endless hours with attorneys preparing, at much expense, to defend the unjust suit. Had the suit been prosecuted and won by the plaintiff for the amount named, it would have taken the entire net earnings of the partnership for the entire time the agreement had been in existence, about fifteen years.

The *Journal of the Medical Society of New Jersey* has this to say about the effect of these suits: "Suppose, for example, that you are 99 per cent sure that this is a benign condition. Still, they might sue you, alleging negligence, if you omitted even a single laboratory study or failed to summon a consultant.*** Accordingly

you order more and more laboratory work, summon a whole corps of consultants, keep the patient longer in the hospital. Nobody is going to say *you* were negligent. This over-cautiousness leads to higher bills for the patient, and this in turn causes more complaints about the high cost of medical care.° ° ° The truth is that a rash of malpractice litigation does *not* serve the public interest° ° ° trigger happy plaintiffs are, in the long run, going to lower standards of public health."

When, in any one area, one out of four physicians has been served papers as a defendant in a malpractice action, the situation approaches the harshness of that in the time of Hammurabi. Mr. Stetler reports the above ratio for California. In Babylon the physician could lose both hands at the wrist if he lost his case. Destructive possibilities facing the physician today sometimes seem no less effective in their ultimate result. Even more important, in the long run may be the damage done to the medical care generally available in this country. •

Hospital Delegates Invite Government Control

The American Hospital Association has adopted a resolution inviting government control of an important segment of health care. Delegates, meeting in Chicago last month, not only registered no serious objection to governmental support of hospitalization of the elderly but went so far as to outline the principles under which it should be provided. Perhaps it is significant that the delegates inserted in the resolution a short sentence to the effect that hospitals should be paid in full for such care. Complete text of the resolution will be found in the general news section of this issue.

This proposal is typical of moves by those interested in socialization. It is difficult to oppugn a proposal to be kind to the aged and the socializers know it very well indeed. They are ready with cries of inhumanity, hard-heartedness and greed. Yet those who wish to preserve the system of individual responsibility and private enterprise must align themselves against this and all other such moves. The foundations of economic freedom must crumble eventually if they are eaten away, little by little.

The American Hospital Association has repeatedly shown itself not to be in sympathy with the aims of medicine. It has given support to corporate medical practice which is not particularly surprising. Corporate practice, if legal, would permit the hospital to hire physicians and dispose of their services on a fee basis, the fees going to the hospital. It is quite understandable that many hospital administrators would like to conduct such a business. Invitation to governmental participation, however, is another matter. Support by the hospital group is surprising, even though it is possible to understand the attractiveness to hospital administrators of a scheme which would bring in more patients and more money.

It is surprising in view of the fact that hospital boards of trustees usually include many business men who should understand the importance of a free enterprise system. Unless hoodwinked by the socializers or not aware of what their delegates are doing, they should be the first to oppose socialization of any part of hospital care.

Physicians who count among their friends those business men who sit on hospital boards should point out the dangers to business when the government is handed control of any portion of the system of individual responsibility. •

Changed Attitude Toward Osteopathy

Oregon and Washington have made significant change in attitude toward osteopathy. Oregon State Medical Society, at the meeting in Portland early in September, adopted a resolution directing Oregon delegates to the American Medical Association to "diligently attempt to persuade the AMA to cooperate with the osteopathic schools in every way possible to improve their educational standards and effectiveness." Less than two weeks later at Spokane, Washington State Medical Association utilized a resolution to advise the Washington delegates of its sentiment that AMA should, "take steps to offer help to improve the admission requirements, the standard of teaching, and the scope of the scientific curriculum of the Osteopathic Colleges in order that these Colleges may improve the training and caliber of their graduates."

At the 1955 AMA meeting the House of Delegates received a report from a study committee established in 1952. Colleges of osteopathy at Los Angeles, Des Moines, Chicago, Kansas City and Kirksville cooperated with the study and were visited by members of the committee. Only one, the college at Philadelphia, refused.

Those who had visited the osteopathic schools had been much impressed by the sincerity and idealism of the men conducting the schools. However it was obvious that the osteopathic schools were handicapped by inadequate financing, insufficient clinical material and facilities, lack of trained clinical teachers, too much faculty inbreeding and lack of opportunity for graduates to take postgraduate training. It was found that osteopathic therapy was included but receiving less and less attention in curricula. Emphasis on it was found to be variable and diminishing. Admission requirements as well as courses required seemed to differ little from those of medical schools.

In its report the committee said,

> The American Medical Association must decide whether it will assist in improving the medical care rendered by doctors of osteopathy. The committee believes that the only constructive course which can be followed is to enlarge the medical education opportunities of the students and graduates of schools of osteopathy by elimination of the classification of teaching in colleges of osteopathy as the teaching of 'cultist' healing. The past of osteopathy is unimportant. Its present, and particularly its future, are important to the medical care of the American people.

The commitee recommended removal of the stigma of cultism, encouragement of doctors of medicine to assist in undergraduate and postgraduate teaching of osteopaths in those states in which such conduct would not be contrary to announced policy of the state medical association, determination of local relationships between osteopathy and medicine by state and county medical organizations and continuation of the committee's work.

Reference committee recommended acceptance of the report. This touched off one of the most vigorous and eloquent debates heard in the AMA House in recent years.

Speaker after speaker took the rostrum to praise the study committee for its work and to support the recommendation of the reference committee. There was ringing applause and it appeared to increase in volume as each speaker added his arguments to those previously presented. It was impossible to escape the impression that the delegates were being won over. In voting, however, other forces were at play.

A minority report recommended rejection of the committee report. The minority report prevailed. In the voting, it seemed obvious that the delegates were not expressing their own convictions but were considering the reactions of their constituents. Apparently they did not believe that members at home were ready to accept removal of the stigma.

Actions by Oregon and Washington indicate that most physicians in this area are now ready to extend a helping hand to osteopathy. These moves should not be interpreted as an attempt to bring osteopaths into medical organizations or alter in any way the legal status of osteopaths. Intent in both states is to help improve standards to the end that people in this area will have better care. It should be noted carefully that the AMA study committee made no reference to changes other than removal of the statement that osteopathic training constitutes the teaching of cultist healing. It should also be noted that the position of state and county medical organizations as final arbiters was given full recognition. Directives in such matters must come from the county society to the state association and finally to the AMA which is simply a federation of state organizations. Actions by Oregon and Washington are in keeping with the proper structure of democratic organization. They reflect a change in local viewpoint which ultimately will help change the position of the national organization.•



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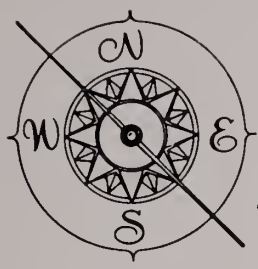
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ORIGINAL ARTICLES

Surgical Injuries of the Ureters

C. D. Creevy, M.D.
MINNEAPOLIS, MINNESOTA

In the interests of brevity and completeness, this discussion will concern only accidental surgical injuries of the ureters. These occur most frequently during abdominal operations upon the female genitalia or the lower large intestine, usually in the presence of dense adhesions, infiltrating neoplasms, or of brisk bleeding which is hard to control, and occasionally during vaginal procedures. The urologist has occasion deliberately to cut and reimplant them during removal of diverticula and cancers of the bladder, and in the correction of retrocaval ureters and ureteral strictures. He may strip the ureter too extensively during ureterointestinal anastomosis. The gynecologist may do the same during Wertheim hysterectomy. Slow necrosis may result, particularly if irradiation preceded operation.

Types of Injuries and Diagnosis

A variety of injuries may occur. The intact ureter may be tied or pinched off when sharply angulated by adjacent ligatures or sutures; it may be perforated by stick ties, or divided with or without ligature or removal of a segment; a piece may be snipped off laterally; or it may undergo rapid or gradual necrosis following crushing by a clamp or destruction of its extrinsic blood supply from energetic removal of part of its adventitia in an effort to excise all of the adjacent lymphatic tissue during an operation for cancer.

The nature of the resulting symptoms depends upon whether the injury is unilateral or bilateral, whether occlusion is complete or incomplete, and whether the injury results in leakage of urine into or behind the peritoneal cavity, or to the outside.

Complete bilateral occlusion causes anuria, usually without other manifestations until uremia develops. Fever and renal pain may occur if the ureter of an infected kidney is ligated. Unilateral complete obstruction is ordinarily entirely silent except in the presence of an antecedent renal infection, in which case chills, fever, renal pain, and toxemia may develop, but these phenomena are more likely to follow partial obstruction. The volume of the urinary output is not altered by unilateral injuries if the opposite kidney is normal.

If the damaged ureter leaks into the peritoneal cavity, signs of free intraperitoneal fluid and of peritoneal irritation will be added to the symptoms already mentioned. Uremia follows bilateral but not unilateral leakage. Retroperitoneal extravasation may produce signs suggestive of a perirenal or psoas abscess. Escape of

Read before the 66 Annual Meeting of the Idaho State Medical Association, Sun Valley, Idaho, July 9, 1958.



Fig. 1. Ureterovaginal fistula.

urine from the abdominal or vaginal wound means, of course, that there is a fistula. One can differentiate between ureteral and vesical fistulae by distending the bladder with colored fluid (indigo carmine). If the fluid escaping is unstained, it comes from the ureter. If the dye escapes from the fistula, the urine is leaking from the bladder rather than from the ureter. It is true that dye may leak from an ureteral fistula by reflux of urine up the ureter from the bladder, but this is uncommon. Its occurrence may be verified by cystography which will delineate the reflux and extravasation.

Cystoscopy is indicated whenever any of the above symptoms or findings follow operations in the vicinity of the ureters. Excretory urography is likely to be unsatisfactory because of the presence in the bowel of excessive amounts of gas, and because the presence of a fresh wound makes impossible the satisfactory application of the abdominal compression so necessary for a good urogram. After inspection of the bladder to make sure that it is intact, the ureters are catheterized. If catheters pass readily to both renal pelves and recover clear urine, one has, for practical purposes, excluded any ureteral injury except a small perforation. If there is reason to suspect that one is present, it is wiser to leave the catheter in the affected ureter than to try to verify the presence of an ureteral fistula by ureterography, lest it be impossible to reinsert the catheter into the damaged ureter. If the inlying ureteral catheter is well placed with its eye in the renal pelvis, and is carefully secured in position, the fistula will probably heal.

The same thing is true if a catheter can be



Fig. 2. Catheter is outside left ureter.

passed to the renal pelvis from the ureteral orifice despite the presence of an ureterovaginal fistula. If the catheter is left in place, the fistula may heal spontaneously or after light electrocoagulation of its vaginal opening (Fig. 1).

If there is any evidence of leakage of urine into the peritoneum or behind it, free drainage must be supplied. If the catheters pass full length but no urine can be aspirated, one must suspect that the ureters have been divided so that the catheters have passed out of the ureters at the site of injury. This is easily verified or disproved by injecting a little contrast medium into the catheters and exposing a film (Fig. 2). If the injected agent is outside the urinary tract, immediate repair is indicated. It will be discussed later. If normal renal pelves are outlined, ureterograms should be made to exclude the presence of perforation. In their absence, any anuria must be due to dehydration, shock, or intrinsic renal disease.

Most often it will be impossible to pass a catheter beyond the site of injury, a finding which demands immediate operation if the obstruction is bilateral. Unilateral lesions should be operated upon promptly, but are emergencies only if there is evidence of intra- or retroperitoneal leakage, since Hinman has shown that the kidney of the dog may recover, in favorable circumstances, after complete ureteral occlusion lasting as long as three weeks. One should remember, however, that the presence of infection in the blocked kidney demands prompt action if the organ is to be saved without undue risk to the patient, and that waiting too long in the hope that an occluding or kinking ligature

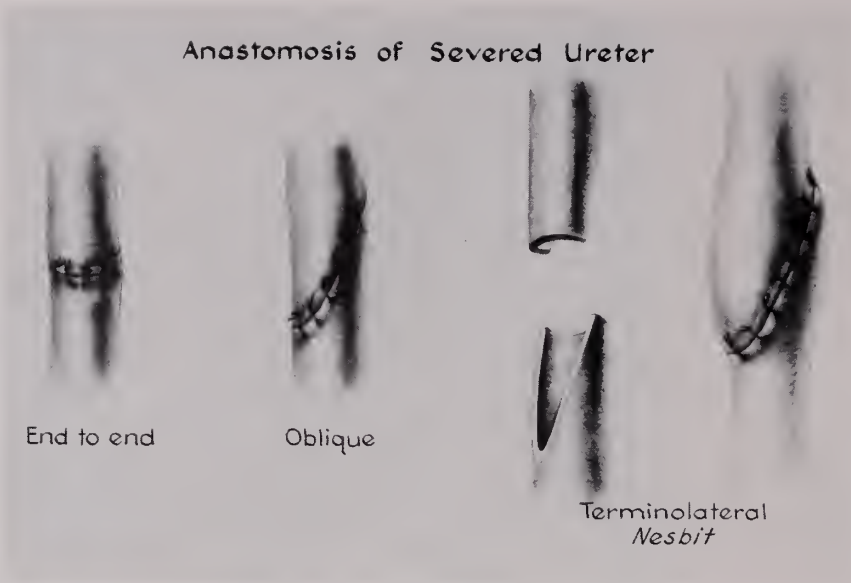


Fig. 3.

will be absorbed may lead to so much fibrosis at the site of injury as to make repair difficult. There is no great hurry when ureterovaginal fistula is the only sign of injury.

Treatment

The best course to follow in the presence of bilateral complete obstruction of the ureters depends upon general condition of the patient. If it is poor, unilateral nephrostomy is safest. As soon as the general state is satisfactory, the abdominal wound should be reopened (or an abdominal incision made if the original operation was a vaginal one). In patients in good condition the abdomen is opened at once. The ureters above the site of obstruction are dilated and can be followed quite readily to the point of injury. Urinary leakage can be seen. Ligatures and sutures from the point of injury downward are removed until any kinks or constrictions disappear. If no urine is seen outside the ureter, one may puncture it above the level of the suspected obstruction with a fine needle and inject a solution of indigo carmine. If none leaks out of the ureter, and if it can then be recovered from a catheter previously placed in the bladder, ureteral continuity has been reestablished and it is safe to close the abdomen with drainage. In the case of bilateral injury of this type, it is desirable to use indigo carmine for the first side and, after it has been recovered from the bladder, to inject phenolsulphonephthalein on the other side. The fluid recovered from the bladder is then made alkaline to decolorize the blue dye and bring out the red of the phenolsulphonephthalein.

A small lateral wound of the ureter without loss of tissue may be sutured with fine (0000) chromic catgut in the adventitia, and the connection with the bladder verified with indigo carmine. If the result is satisfactory, abdominal closure with extraperitoneal drainage may be made. If there is a large laceration or complete division of the ureter, one should pass a small catheter down the distal segment into the bladder to make sure of its patency. It is withdrawn, and a small perforation is then made in the distal segment of the ureter below the injury. The largest Robinson (two-eyed) or polyethyelene catheter that fits snugly into the ureter without distending it is then passed up through the site of injury into the renal pelvis and secured with fine plain catgut to the adventitia of the ureter at the point of entry. The flared end of the catheter is brought out extraperitoneally. If the distal segment cannot be found, one may sometimes locate it readily by inserting an ureteral catheter into it through a cystoscope. If this fails, a tubed flap of bladder may be used to replace the lost segment (see below).

The type of repair of complete division depends upon the condition of the ureter. If it

has been divided cleanly without crushing, and if its lumen is larger than normal, a catheter is threaded up to the renal pelvis as described above, and a simple end-to-end anastomosis is made over the catheter with four or five loosely tied sutures of 0000 or 00000 chromic catgut in the adventitia, any crushed tissue at the severed ends being trimmed off first (Fig. 3).

If the lumen is small, a stricture is likely to follow this type of repair, and an oblique or terminolateral anastomosis is preferred because it increases the circumference of the suture line so that, in the absence of an unusual amount of postoperative scarring, a wide anastomosis will remain after contraction of the scar. The sleeve type of anastomosis found in all the textbooks, in which the upper end of the ureter is invaginated into the lower end, is objectionable because it leaves a ledge within the ureter. This may defeat all attempts to dilate it postoperatively, should this become necessary, and necessitate reoperation.

When a segment of the ureter is missing, both the location and the length of the defect are important. Short defects may be overcome by mobilizing the ureter with some of the surrounding tissues above and below, taking care to preserve the extrinsic blood supply, and making one of the anastomoses already described. McArthur bridged a defect too long for a direct union by passing a catheter from the bladder or from a perforation in the distal segment up to the renal pelvis, suturing the soft tissues loosely around the exposed portion of the catheter, and leaving it to Providence to rebuild the missing segment. He made no follow-up studies of the kidney. This asks too much of Mother Nature.

Higgins, Moore, and Smith have succeeded in mobilizing the upper segment of the damaged ureter, drawing it beneath the posterior parietal peritoneum, and anastomosing its end to the side of the intact opposite ureter. This is justifiable only if the opposite kidney is inadequate, because otherwise one endangers the sound kidney for the benefit of the injured one if anything goes wrong; a stricture at the anastomosis cannot be dilated. The operation is a surgical tour de force.

When the defect is in the pelvic ureter, the upper segment may be mobilized and reimplanted into or anastomosed to the bladder, particularly if the missing segment is short or if the upper segment of the ureter is dilated, and therefore elongated (Figs. 4 and 5). If the injured or missing portion of the ureter is so long that neither reimplantation nor anastomosis is possible without tension, one may fashion a flap from the wall of the bladder, convert it into a tube, and implant the ureter into it or make an anastomosis between them (Fig. 6). If the bladder is normal in size a considerable length of pelvic ureter can be replaced in this manner, but if the bladder is fibrous and contracted, this cannot be done. If the defect is too long for replacement by a tubed flap of bladder, an isolated segment of ileum may be anastomosed to the ureter above the injury and to the bladder below.

These techniques are applicable to all types of surgical injuries of the ureters, including those discovered at time of the original operation, those found within a few days, and those which manifest themselves after an interval, as is often the case with ureterovaginal fistula.

General Principles of Ureteral Repair

Certain general principles are common to all operations for repair of the ureter. Nonabsorbable sutures should never be used in the urinary tract itself, not even in its adventitia, because they will almost inevitably work their way into the lumen of the urinary tract, there to become encrusted with urinary salts. There should be no tension whatever at the site of repair. All sutures should be loosely tied in the adventitia, aiming at approximation without necrosis. Nothing should be wrapped around the anastomosis lest it contract later. The urine should be diverted from the area of any extensive repair of the ureter by means of nephrostomy, pyelostomy, or ureterostomy or conducted past it by means of a catheter. The latter is usually simpler and is preferred because the inlying catheter keeps the repaired ureter straight, and separates granulating surfaces during healing so that they cannot become adherent. An ureteral catheter should not be used for this purpose because it is too easily plugged, with resultant disruption of the anastomosis. Per contra, the catheter should never distend the ureter to the point of blanching; necrosis may result.

One may pass one end of the catheter down into the bladder and the other up to the kidney, fishing the distal end out through the urethra or through a puncture in the anterior wall of the bladder. However, it is better to bring the distal end of the catheter out of a puncture in the wall of the ureter below the injury because

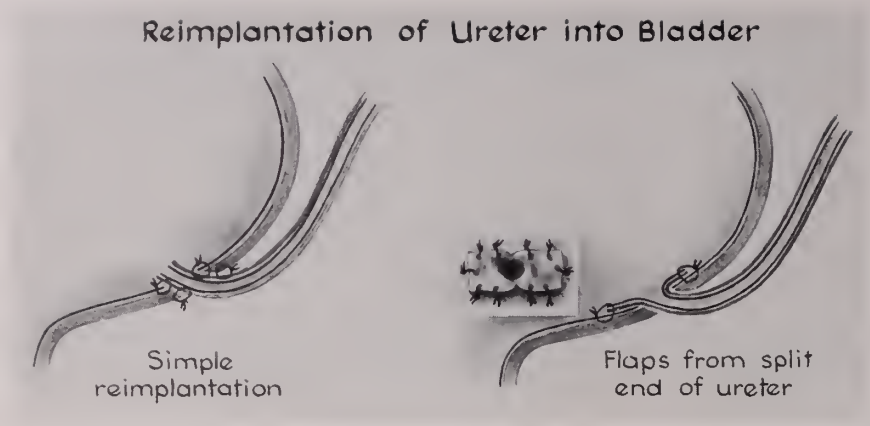


Fig. 4.

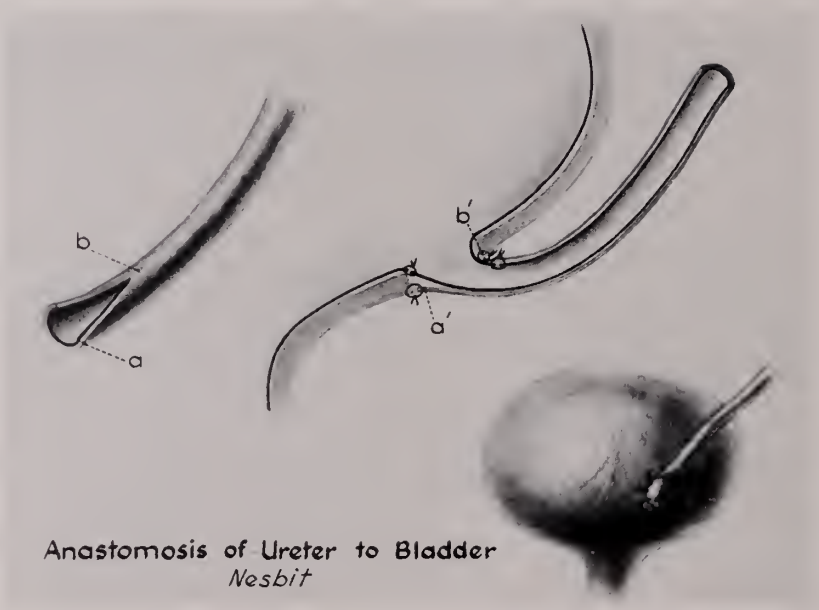


Fig. 5.

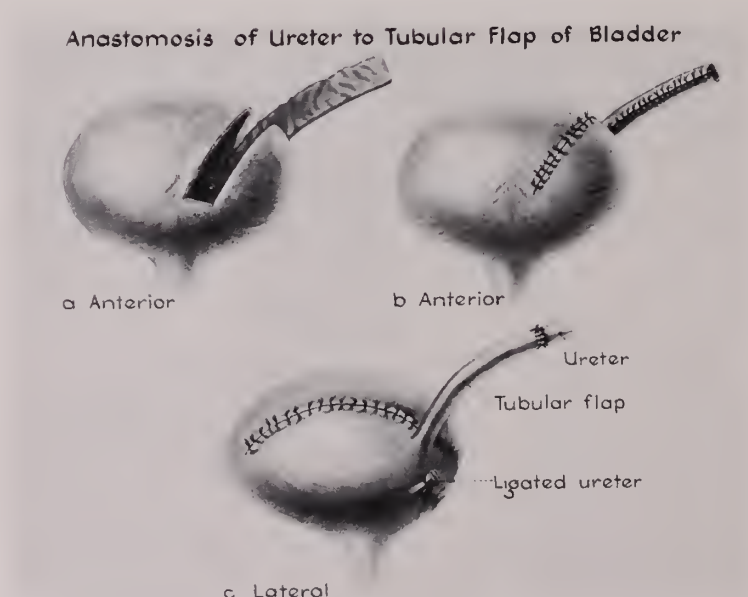


Fig. 6.

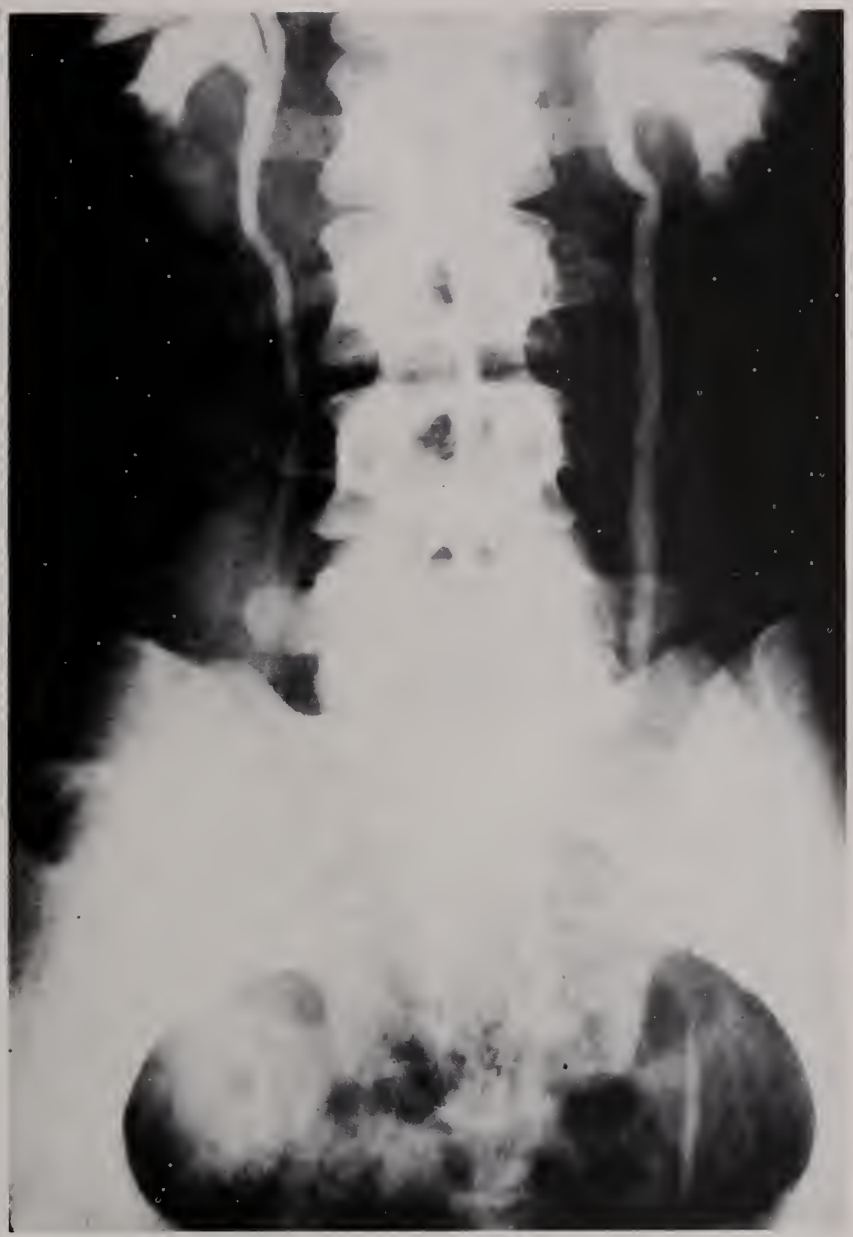


Fig. 7. Eighteen months after oblique end-to-end anastomosis of left ureter.

suturing the catheter at the site of its emergence is effective in keeping it from slipping down before the time for its removal. All such catheters should be left in place for from 10 to 21 days, depending upon smoothness of the convalescence. Drains alongside these catheters may be removed as soon as drainage around them ceases to do more than stain the dressing.

T tubes may be used to pass urine through an anastomosis or repair, but I am always uneasy after using them because the upper arm of the T does not reach the renal pelvis. This increases the possibility that urine may pass around the tube and damage the repair.

It is probably wise to administer an antibiotic or urinary antiseptic while catheters are in place. This will not prevent infection, but will serve to minimize it. One may start with streptomycin and penicillin during the immediate postoperative period while the patient is unable to take oral medication. This may be replaced within a few days with oral sulfadiazine or Gan-



Fig. 9. Four years after bilateral ureteral implantation.

trisin in moderate doses. Tetracycline and Chloromycetin are reserved for short term treatment or for serious infections. One does not wish to immunize organisms against them while there is a foreign body in the ureter.

The fluid intake should be high while a catheter is in place, primarily to reduce danger of plugging. Chief danger of an inlying catheter used for long periods lies in the introduction of urea splitting bacteria into the urinary tract with resultant encrustation of the tubes and the later formation of stones. For this reason it is probably wise to administer an aluminum salt while the catheter is in place, thus keeping much of the dietary phosphorus in the bowel and reducing the excretion in the urine of phosphates, an important constituent of the encrustations. Early and frequent ambulation helps to prevent stasis of the urine in the dependent calices of the kidney, another important factor in the formation of stones.

If both ureters have been completely ob-

structed for some time before repair, one must remember that the ensuing diuresis may result in the loss of a good deal of salt and water from the body, and should adjust their intake accordingly.

Late follow-up after a successful repair of ureteral injury is as important as a successful operation to make certain that neither stricture, secondary infection, nor lithiasis ruins the result. This means that the urine must be sterilized after healing has occurred, and that periodic excretory urograms or retrograde pyelograms should be made until danger of stricture is past —usually a matter of a year or two. If narrowing of the anastomosis or hydronephrosis above it appears, ureteral dilatation is required (Figs. 7, 8, and 9).

Nephrectomy and Ureteral Ligation

You will have noticed that I have not mentioned deliberate ligation of the injured ureter nor nephrectomy as satisfactory methods of treatment. Both are objectionable unless preoperative studies of the patient have shown unmistakably that the opposite kidney is capable of supporting life alone. This implies at least a good excretory urogram capably interpreted. Palpation of the opposite kidney at operation is a very poor guide to its functional capacity, and should be relied upon only in a grave emergency, since badly damaged kidneys may feel quite normal, even to the experienced urologist. In case of doubt it is far more conservative to make a temporary nephrostomy, pyelostomy or even a cutaneous ureterostomy and to swallow one's pride. Ureteral ligation has certain disadvantages of its own: It may lead to a fulminating acute pyelonephritis if the kidney is infected; the ureteral ligature, no matter how care-



Fig. 9. Five years after Boari's operation on the right.

fully placed, may slip or cut through. Therefore, ureteral ligation has no place in the treatment of ureteral injury except in dire emergencies.

Prevention of Ureteral Injury

The prophylaxis of ureteral injury is largely a matter of care in dissection and of the exercise of foresight. One should remember that the ureter may be displaced by neoplasms or inflammation; it may be pulled up with peritoneum. Rough, hasty, slashing dissection should be avoided; one must never grab blindly for a bleeder in a pool of blood in the region of the ureter. If a difficult dissection is anticipated, it is cheap insurance to insert a large catheter into each ureter just before operation, this can be done while the abdomen is open if unexpected difficulties are encountered, even by a relatively inexperienced cystoscopist.

Summary and Conclusions

1. Surgical injuries of the ureters occur most frequently during difficult or bloody pelvic dissections.
2. Their recognition is usually simple.
3. Type of repair depends upon type of injury and condition of patient.●

University of Minnesota Medical School (14).

Report from the Washington Office of AMA

WASHINGTON, D.C. — When the Congress that is elected in November goes to work next January 7 it will have before it a half dozen important health-medical issues that the last Congress took some interest in but did not resolve. They include hospitalization under social security, tax-deferment on annuities, loans and mortgage guarantees for hospitals and nursing homes, aid to medical schools and amendment of Veterans Administration's hospitalization procedures.

The issue of hospitalization under social security—the Forand bill principle—will come into the spotlight shortly after the new session starts. Under instructions from the House Ways and Means Committee, the Department of Health, Education, and Welfare will complete a study on the problems of financing hospital care for the aged before next February 1. Some study of medical costs may also be included.

Decision to move ahead with a study of medical care costs for the aged was reached by the committee at the same time it excluded the Forand idea from the social security bill enacted during the summer. HEW was told to pay particular attention to the possibility of increasing OASI taxes, and with the money purchasing health insurance (nonprofit or commercial) to take effect upon retirement or disability. This would differ from the Forand plan in that health care would be financed through insurance, and not paid for directly by the Federal government.

The Keogh bill to allow doctors and other self-employed to defer income taxes on money put into retirement funds passed the House with very little opposition, but encountered difficulty in the Senate. It was defeated there in the closing days, and under unusual circumstances. Policy committees of both parties decided to oppose the bill as too costly, and the vote came in the course of a complicated legislative maneuver that could not be used as a test of whether individual Senators favored or opposed the bill itself.

Keogh bill sponsors, however, are encouraged that 32 Senators resisted official party instructions and stayed with the pension plan. They are confident that next year under more favorable legislative circumstances the measure will clear the Senate.

An effort was made late in the session to authorize grants to medical schools for building and equipping teaching as well as research facilities. The bill extending the reasearch grants program also would have allowed use of the grants for "multi-purpose" structures (teaching and research) if emphasis were on research. However, for fear this change would hold up the simple extension bill, it was dropped off before the bill reached the House floor. Sponsors of aid to medical education will be back next year and campaign on this issue alone.

Legislation for U.S. guarantee of nursing home mortgages, strongly supported by the Ameri-

(Continued on page 1286)

Treatment of Ankle Injuries

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Injuries to the ankle joint constitute one of the most common conditions which the general practitioner will encounter. There is no doubt that many ankle injuries are treated over-casually. Hence, origin of the expression, "Once a sprain, always a sprain." It is my opinion that there has not been sufficient consideration given to the exact pathology present in each individual case. In order to be able to treat intelligently any injury of the ankle joint, a definite diagnosis must be made as to the exact nature of the damage. This predicates a working knowledge of the anatomy of the region involved.

Let us consider the anatomic characteristics of the ankle joint that have a direct bearing on the type of injury that occurs in response to various forces applied (Fig. 1). The ankle joint is functionally a hinge joint with motion only in one plane—namely, flexion and extension. The bony structure is designed to make up a mortice and tenon with considerable inherent stability. The mortice is formed by the lateral malleolus, the under surface of the tibia and the medial malleolus. The tenon is the body of the talus which is shaped to fit snugly into the mortice. It is noted that the lateral malleolus is longer than the medial malleolus. Its distal tip extends to the bottom of the talus at the level

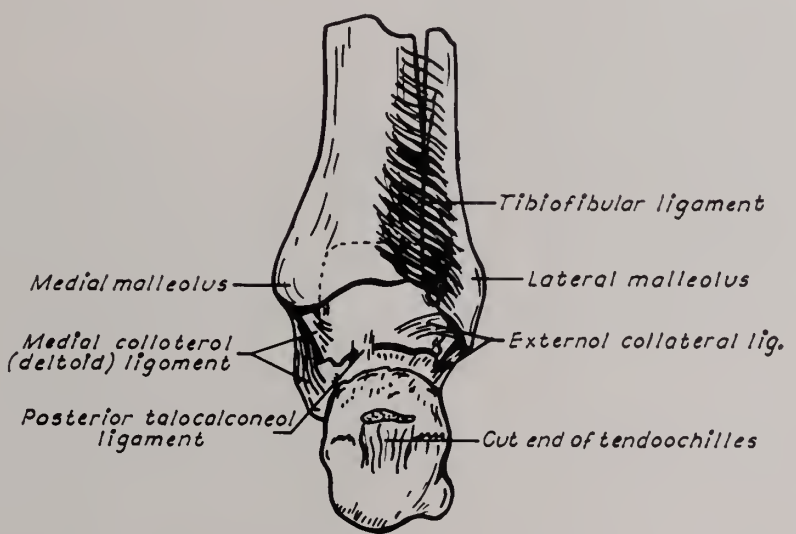


Fig. 1. Posterior view of the right ankle. Note tip of lateral malleolus extends to the bottom of the talus whereas the tip of the medial malleolus extends only one half way down the verticle height of the talus. Note the gradual increase in thickness of the tibiofibular ligament as it approaches the ankle. The medial collateral ligament is extremely heavy as compared to the lateral collateral.

Read before the 66th Annual Meeting of the Idaho State Medical Association, Sun Valley, Idaho, July 8, 1958.

of the talocalcaneal joint. It is roughly rectangular in outline, but actually somewhat narrower at the level of the lower end of the tibia. The medial malleolus on the other hand is short and thick, being roughly pyramidal in shape with its base upward. Its distal tip extends only half way down on the body of the talus. The tibia and fibula are bound together by the anterior and posterior tibiofibular ligaments which are really thickened expansions of the same interosseous membrane which fastens the two bones together throughout their length. Although there is some motion in the articulation between the tibia and fibula at the lower end, there is to all practical purposes complete stability between the two bones. Thus, the ankle joint has stability from two sources: first, the bone formation described above and, second, the extensive investiture of ligaments that surround the joint.

The ligaments become thin in front and behind to permit flexion and extension of the joint, and thicken on the sides to become the tibial and fibular collateral ligaments. The medial collateral, or deltoid, ligament is particularly strong, has a very broad attachment to the internal malleolus and extends downward in many bands to become intimately connected to the ligaments supporting the arch of the foot. In addition to stabilizing the ankle joint on the medial side, it serves to support the arch and hence is a doubly vital structure.

It is possible to dissect the lateral collateral ligament into many separate ligaments but there are three primary fasciculi; one running forward to attach to the talus anteriorly (anterior talofibular), another backward to attach to the posterior portion of the talus (poserior talo-fibular), and one directly downward to attach to the calcaneous (calcaneo-fibular). These ligaments also blend into the lateral ligaments of the foot, extending forward onto the cuboid and to the base of the fifth metatarsal. Together the medial and lateral ligaments, acting in conjunction with the two malleoli, serve to prevent lateral rocking motion at the ankle joint.

The long lateral malleolus, with the medial ligament, prevents excess motion to the outer side. The length of the lateral malleolus firmly holds the body of the talus so that lateral motion in the tarsus is more restricted than is medial. A normal range of flexion-extension is permitted with its axis at the tip of the medial malleolus.

Since the ankle joint is functionally a hinge joint freely permitting only dorsiflexion and plantarflexion, it follows that ligament injuries to the ankle are primarily due to lateral stresses and so readily fall into two categories—namely, inversion injuries and eversion injuries. In an inversion injury, the ankle and foot are forced into inversion, internal rotation and plantar flexion in relation to the leg. Similarly, eversion injuries result from eversion, external rotation and dorsiflexion.

Inversion Injuries

In inversion injuries as the foot rolls inward in relation to the leg, the push will be applied against the medial malleolus and the pull applied to the lateral ligament which is functionally designed to stop this motion. As a result of over inversion, this ligament will tear slightly, partially, or completely depending upon the strength and duration of the force applied. As the inverting force continues and the lateral ligament gives way, the ankle opens up on the lateral side thus forcibly thrusting the talus against the medial malleolus (Fig. 2). This buttress,



Fig. 2. AP x-ray of ankle. *Left*: Standard view. *Right*: Inversion stress x-ray showing the talus rotating over the tip of the medial malleolus and departing from the fibula laterally. This indicates loss of the external collateral ligament.

being short and stubby, may act as a fulcrum with its tip against the middle of the internal surface of the talus so that the talus will rotate over the malleolus rather than break it off. In this case the injury will be confined to the lateral side of the foot and will be primarily a ligament injury. The lateral ligament may tear

at its attachment to the foot or in its substance or at its attachment to the fibula. Indeed, the external malleolus may be fractured at any point up to the level of the inferior articular surface of the tibia.

Inversion injury is the most frequent type of injury occurring at the ankle joint. Eighty-five per cent of all injuries to the ankle consist of inversion injuries and are ligament injuries, so-called sprain or sprain fracture. However, if the abnormal force continues and is very severe, the medial malleolus may actually be pushed off at its attachment to the tibia. The talus may be driven against the posterior or medial portion of the tibia and break off the posterior lip of the inferior articular surface of the tibia. Obviously other injuries may occur, such as fracture of the medial margin of the talus, fracture to the neck of the talus, or damage to the other tarsal bones, but by far the most common injury is to the external collateral ligament.

Eversion Injuries

If an eversion force is applied, the foot is carried outward in relationship to the leg and the talus is forced laterally. Here the anatomic difference between the two malleoli becomes quite significant and indicates the type of injury one should expect from an eversion force. Whereas, on the inner side the medial malleolus is short and the talus may rotate over it, on the outer side the lateral malleolus extending downward throughout the full height of the talus prevents rotation over its tip and a lateral thrust is applied directly against the lateral malleolus. The push is toward the outer side; the pull away from the medial side of the foot.

As the talus is forcibly driven against the lateral malleolus, the malleolus serves to stop this motion before undue stress is applied to the medial ligament. If the force continues and is severe, the lateral malleolus will give way. This injury may be manifested in several different ways. The malleolus may break off at the level of the lower end of the tibia and this may be the extent of the injury. Much more frequently the medial collateral ligament will also give away with tibiofibular separation (Fig. 3). However, the same force may actually drive the fibula away from the tibia, the fibula itself holding and tibiofibular ligament rupturing (Fig. 4).



Fig. 4. *Left*: Rupture of the medial collateral ligament, displacement of the talus laterally, separation of the fibula and tibia by rupture of the tibiofibular ligament. The fibula itself is intact. Note avulsed fragment of bone and ligament caught between medial malleolus and talus. *Right*: After repair of medial ligament and tibiofibular separation.

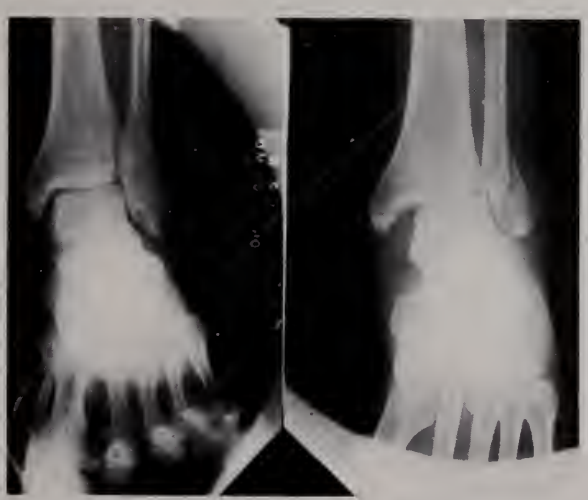


Fig. 3. *Left*: Straight AP x-ray indicating fracture of the fibula. *Right*: Same patient after displacing the talus laterally which shows this is not a simple fracture of the fibula but that the medial collateral ligament is torn.

This permits separation of the ankle mortice. If this separation continues widely enough, the interosseous membrane binding the tibia and fibula together holds at some point and the fibula will break somewhere in the shaft (Fig. 5).

One may state categorically that if there is fracture of the fibula above the level of the ankle joint not caused by a direct blow, the tibiofibular ligament has been ruptured and integrity of the ankle mortice has been lost. When the force has been extensive enough to rupture the



Fig. 5. *Right*: Rupture of the medial ligament, separation of the tibiofibular ligament, lateral displacement of the talus, fracture of the fibula above the level of the joint. This fracture cannot occur without rupture of the medial ligament. *Left*: After repair of the medial ligament and fixation of the tibiofibular joint.

tibiofibular ligament, the talus must indeed have been carried laterally far enough to place overstress on the medial ligament which in turn gives way.

Injuries which may occur on the medial side of the foot are similar to those which occur on the lateral side with inversion injuries. That is, the deltoid ligament may be ruptured at any point in its substance or at either attachment, or the medial malleolus may be pulled away from its attachment to the tibia. Although severe forces may cause other injuries, such as fracture of the margins of the lower articular surfaces of the tibia or fracture of the tarsal bones, by far the more frequent injuries are to the two malleoli and to the corresponding ligaments. Although a great majority of all injuries to the ankle are sprains and consist of inversion injuries, most fractures of the ankle are caused by eversion forces.

It is immediately apparent that it is extremely important in a given case to analyze the forces applied in order to interpret properly the physical and x-ray findings. In many cases what appears to be a simple fracture of the shaft of the fibula will indeed be a complete dislocation of the ankle with rupture of the tibio-fibular and deltoid ligaments. The result obtained in a given case will depend upon how carefully and accurately one has analyzed the exact nature of the damage. For treatment to be at all intelligent, diagnosis must be accurate.

Diagnosis

1. *History.* Since the forces which cause ankle injuries are of such significance in the condition which results, one must determine, if possible, the exact mechanics of the injury. Was the foot inverted or everted? How did the accident oc-

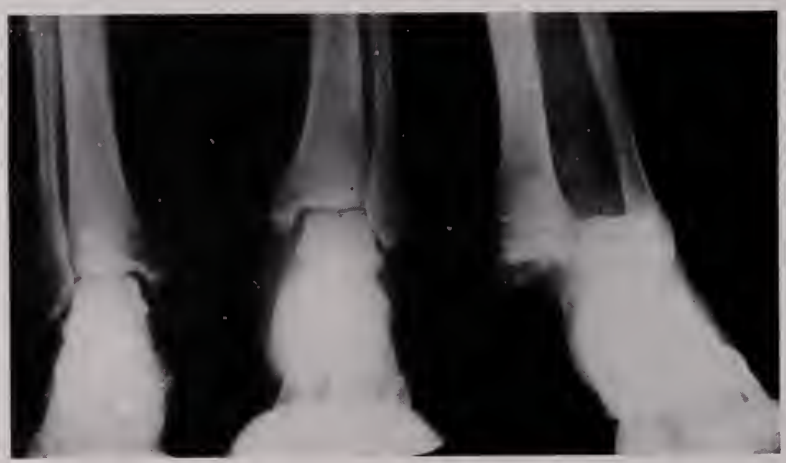


Fig. 6. Severe sprain before and after reduction shows importance of x-ray before reduction. Note reduction is not complete in center view as compared to normal ankle. While very careful interpretation of the middle view would indicate there was some ligament damage as indicated by slight lateral separation of the talus due to impingement of the ligament between the talus and malleolus, the original view on the right gives a dramatic representation of the nature of this injury—namely, ruptured medial collateral, ruptured tibiofibular ligament. One might expect here a fracture of the fibula through its neck superiorly. This did not occur in this case however. Repair of medial ligament and fixation of fibula to tibia by long screw resulted in normal ankle.



Fig. 7. Routine AP and lateral x-ray are apparently negative. Oblique view reveals true condition—namely, fracture of medial malleolus, rupture of tibiofibular ligament. In this instance the clinical examination of the foot did not agree with the x-ray findings so further x-ray study was made.

cur? Was disability immediate? Or, is disability the result of swelling and edema? Was there a primary deformity which was corrected by the patient or a friend or the x-ray technician in making the picture? How long ago did the injury occur? What was the treatment? Has heat been applied, or cold? All these factors give important leads, not only as to the type and location of injury, but as to its severity. They will be invaluable guides to the treatment indicated.

2. *Examination.* Examination of the injured ankle should be preceded by careful examination of the opposite leg in order that a normal may be obtained for comparison. One should then proceed to a meticulous but extremely gentle examination of the involved extremity. If one begins by simple observation, he can obtain the confidence of the apprehensive patient and more detailed information may be obtained. Observation will reveal deformity, the location and amount of swelling, tension in the skin, and the extent of circulatory impairment. Following observation, by careful palpation one can determine the tension and the degree of swelling. There may be obvious bony crepitation on careful palpation through the skin. Then, by gentle manipulation determine the pain-free range of motion and see if there is increased lateral motion. If lateral motion is not permitted, notice whether there is pain on attempting to elicite lateral motion. Any abnormal motion indicates serious ligament or bone injury.

3. *X-ray examination.* X-ray examination ought to be carried out only after careful clinical examination by the surgeon. If posible, he should examine the foot before the x-ray is made. X-ray technicians are trained to position extremeties in certain standard ways and often manipulation of the part to get proper x-ray position will reduce deformities or screen injuries which might otherwise be obvious. The x-ray technician should be instructed to make the original picture without correction of the position of the foot since this may give an invaluable guide as to degree of injury (Fig. 6). Following this original picture, proper positioning can be made to obtain the standard views. At least three views should be made: an AP of the tarsus, an AP of the ankle, and a lateral of the ankle and foot. Oblique views are invaluable and may reveal fractures not seen in conventional views (Fig. 7). If abnormal motion can be elicited, an x-ray made in the abnormal position is of considerable value (Fig. 3). If the x-ray examination does not appear to be consistent with the clinical findings, a careful review of all findings must be made. In other words, if it appears to you that there is a fracture and x-ray does not reveal it, further views may clarify the situation.

Careful attention to all these details of history, physical examination and x-ray visualization will often permit early diagnosis of a serious injury. Definitive treatment may then be carried out promptly rather than after a period of time during which it is determined that the injury

is more serious than it was first considered to be. Although the majority of injuries to the ankle will be sprains without bone involvement, it is extremely embarassing to discover after several weeks that the treatment was woefully inadequate because of more extensive damage than was recognized at the time the treatment was begun.

Treatment

Before treatment can be properly initiated in any individual case, it is important to classify the injury not only as to type and structures damaged but also as to severity. It is axiomatic that the closer an injury approaches the joint the more necessary it is to get completely accurate repositioning of the injured structures. One must not be satisfied with incomplete reduction or partial replacement of fractures or dislocations about the ankle any more than about any other joint. Indeed, it is more important to get accurate repositioning in a weight-bearing joint than in the non-weight bearing joints in the upper extremity.

One hundred per cent reduction must be accomplished by whatever method will insure the best result, not by the method which at the time seems the most convenient. A little extra care at the time of injury will save a great deal of time and trouble at a later date. It is a well recognized fact that surgery will be required in a certain percentage of injuries about the ankle joint. Recognizing this fact, it is extremely important that surgery be considered as a method of treatment per primam. If it is necessary to carry out surgery in order to obtain the best results, it should be done promptly, at time of injury, rather than backed into after nonsurgical treatment has failed.

Since the majority of injuries about the ankle are sprains, I shall first consider the treatment of sprains. Sprains can most readily be classified into three divisions—namely, *mild, moderate* and *severe.* This arbitrary division is largely self-explanatory but is subject to a good deal of variation according to the individual physician. The groups will, of necessity, overlap.

A *mild* sprain is one in which there has been a partial tear of some of the elements of one of the ligaments at the ankle joint without any actual functional weakening of this ligament as a whole. In such a case, one would expect to find minimal symptoms; local tenderness, local swelling and mild disability. Indeed the disability may be so mild that the patient does not even seek advice from a physician.

Examination will reveal no pain on normal motion, no abnormal motion and only a moderate degree of pain on reapplying the stress which caused the original injury. X-ray examination will be negative. This type of case requires no very extensive treatment and is the type which gives dramatic results from the local treatment which was so extremely popular a few years ago. Unfortunately, these local methods have been applied in many cases where they were entirely inadequate.

Local application of ethyl chloride spray tends to break down the cycle of vessel spasm and reduce the local swelling and edema. It can have no effect on strength of the ligament itself nor on its healing. This should be kept in mind since it does tend to relieve the symptoms but does not protect the part. However, in the mild case, local injection of procaine and hyaluronidase will tend to permit rapid absorption of the hematoma and reduce pain. It is valuable in treatment.

In this instance, the ideal treatment would be rest with application of ice followed by heat. However, in a mild sprain this is usually not necessary. It is not justified if it interferes with the patient's occupation. Local injection followed by adequate strapping (Fig. 8) and a well fitted shoe may be all the treatment that is necessary since there is no actual weakness of the ankle joint.

It should be pointed out again, however, that if one is to permit normal activity, one must be extremely sure of the diagnosis. It is unwise in any case to use local treatment which relieves the symptoms and then permit the injured person to participate in active sports immediately. Lapse of several hours may determine a little more accurately the extent of injury.

A *moderate* sprain consists of one in which there has been an actual tear of a portion of the ligament but in which the integrity of the ligament has not been entirely lost. There is some weakness of the ligament but no abnormal motion is permitted. Ordinarily, history is given of sharp inversion of the foot and a fall with immediate severe pain. The patient is not necessarily wholly incapacitated for walking since direct weight bearing does not put strain on the injured ligament.

Symptoms are usually so severe that medical aid is sought. On examination there is found to

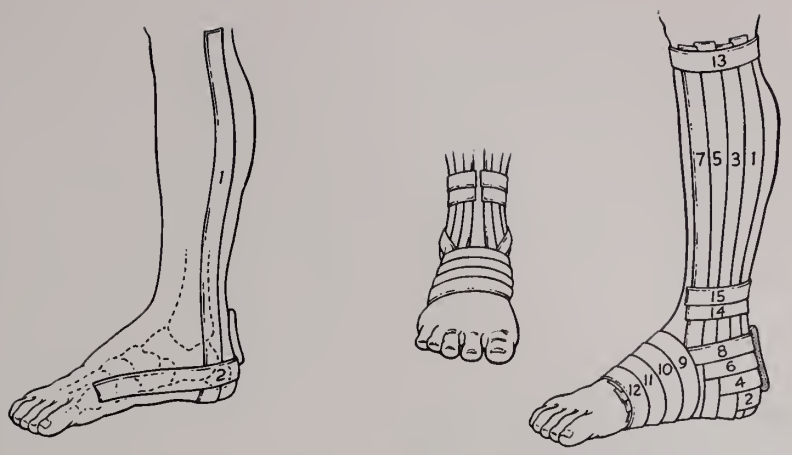


Fig. 8. Ankle strapping, Gibney type. The verticle straps are for lateral ligament support; the horizontal straps are for fixation of the dressing. For remedial strapping, the strips should be as illustrated. For protective strapping, taping should stop at the height of strip 15. Left shows the felt pad which should be placed under the tape to protect the heel cord. This is quite important if the athlete is to run. If the foot is expected to swell, the circular straps around the foot should be cut down the front. The whole foot should be wrapped with gauze bandage or elastic bandage.

be severe pain in the ankle, swelling diffusely through the ankle and foot and tenderness over the lateral side of the foot and ankle, usually sharply increased at the area of the damaged ligament. This may be at the attachment of the ligament to the foot, or at the malleolus, or it may be in the substance of the ligament. The patient may hold the foot in an inverted position but any attempt to invert the foot beyond this point will cause severe pain. Even normal motion may be painful. An attempt to reproduce the forces causing injury will elicit severe pain. However, there will be no abnormal motion since a portion of the ligament is still intact. X-ray is negative except as it may show a sprain-fracture at one or the other attachments of the ligament.

In consideration of treatment it should be borne in mind that whereas in the mild sprain there is no weakness and protection is not vital, in the moderate sprain there is definite weakness of the ligament. The main purpose of treatment is to protect the ankle against further injury until healing occurs, as well as to promote repair of the damage already present. Rather mild injury superimposed over the already weakened ligament may cause complete avulsion.

The ideal treatment would be local injection of the area with hyaluronidase and procaine, followed by compression bandage and ice pack for several hours. Here again, relief of symptoms by local injection should not permit early ambulation or early function of the part since this will have a detrimental effect upon healing. The patient should be put to bed with pressure bandage and ice pack for 8 to 10 hours. At the end of this time, further analysis should be made as to extent of the injury.

Following the period of ice packing, a posterior and a lateral stirrup splint should be applied from below the knee to the toes in order to maintain the part in normal weight bearing position. The patient should then be allowed to get up on crutches but should be advised not to bear weight on the extremity. Several days later, after the swelling subsides, this splint should be replaced by a walking cast which may be worn for ten days to three weeks depending upon extent of the damage.

It may be argued that a cast handicaps the patient needlessly. Usually, it will be found that, in a ligament injury of this degree, the patient will be substantially disabled in any event and he will actually get around more efficiently and with less pain in the walking cast than he will with ordinary wrapping or strapping. Following removal of the cast at the end of 10 to 20 days, it is advisable to apply well

fitted adhesive strapping of the Gibney type (Fig. 8) in order to protect the ligament against further injury. This strapping should be worn until symptoms are minimal, ordinarily at least four weeks from the time of injury. If the original injury is treated adequately in this manner, there is little reason to expect recurrent injuries since the ligament will heal at its normal length and strength.

A *severe* ankle sprain consists of one in which the integrity of the ligament has been lost completely. The ligament is either pulled completely in two or one or the other of its attachments has given way. History will be essentially the same as for moderate sprain but all complaints will be more severe. The patient will frequently volunteer information that the foot had been deformed, had been reduced by manipulation, and that pain was relieved by the reduction.

Examination will reveal more serious and extensive findings than in the other groups. The swelling will be more extreme. The pain will be more severe. Any attempt at motion of the foot will be resisted. The patient is extremely apprehensive. If the foot is examined very early, abnormal motion may be elicited without undue pain. It is justifiable, in certain cases, to inject procaine in the painful area or even to induce light anesthesia in order to determine whether or not there is complete disruption of one of the ligaments of the ankle joint. An x-ray should be made in the abnormal position if possible (Figs. 2 and 3). These cases are relatively infrequent but when they occur the consequences may be extremely disastrous, if the true condition is not recognized and appropriate treatment instituted. Many of the most disabling injuries reveal no demonstrable fracture (Fig. 6), but are caused by dislocation. Ligament injury may be extremely severe.

One of these serious injuries to the ankle is disruption of the medial collateral and tibiofibular ligaments, in which case the x-ray findings may be completely negative. Also the external collateral ligament may be completely torn and a normal x-ray picture seen. From the standpoint of treatment, one must recognize the condition present in order to determine the treatment. Obviously, treatment must be far more comprehensive than that for an ordinary sprain of the ankle. This is the reason that the diagnosis must be made at the earliest possible moment. If surgery is to be utilized for repair of the ligament, it should be done promptly in order to secure the best results. If there is a complete severance of the medial collateral or tibiofibular ligament or both, surgical treatment is certainly the treatment of choice.

If there is complete avulsion of the external ligament, it may well heal in a satisfactory position without surgical intervention since snug support is not as necessary for the lateral ligament as for the medial or tibiofibular. However these are patients in whom recurrent sprains occur due to overlength of the ligament. If it can be determined that there is a complete tear of this ligament, surgical repair will not only speed recovery but will improve the probability of obtaining a 100 per cent functional result.

The single most important consideration is that one must not temporize but must make up his mind whether or not surgery is to be done. The time to carry out surgery is at the earliest time that it can be determined it should be done. While late surgery is not nearly as favorable as is early operation, it should not be omitted simply because the diagnosis has not been made at time of the injury.

If it is concluded that non-surgical treatment is the treatment of choice, then the same treatment is indicated as for a moderate sprain, namely: local injection, compression, ice packs, splinting, walking cast, and adhesive strapping. All of these phases must be somewhat more extensive and protection must be carried out for 8 to 10 weeks since there is marked functional loss in the ligament. If such a long period of immobilization is required, formal rehabilitation becomes necessary. Actually, rehabilitation is required in direct proportion to the length of time it is necessary to immobilize the joint.

Following operative repair, posterior and lateral stirrup splints are utilized for about 10 to 12 days. Then stitches are removed and a walking cast applied which the patient will wear until four weeks postoperative. At this time, strapping and rehabilitation commence. Actually, rehabilitation will be much less important if a walking cast has been used since the muscles in the extremity not immobilized will be in good condition. I do not believe the oft repeated statement that "Ligament injuries are worse than fractures." This aphorism has arisen from the fact that serious ligament injuries have been undertreated and so the consequences have been more severe than from an adquately treated fracture. Careful history of the patient having painful recurrent sprains in

the ankle will probably uncover an initial injury which was inadequately treated.

Fractures About the Ankle

I have noted above that while the most common injury to the ankle is sprain and is an inversion injury, the most common eversion injury to the ankle is actually fracture. The two most important considerations in the treatment of fractures about the ankle are: 1. maintenance of the integrity of the ankle mortice, and 2. complete re-establishment of the weight bearing surfaces of the talus and tibia.

Good function of the ankle will not follow separation between the tibia and fibula with corresponding widening of the ankle mortice. Irregularity of the weight bearing surface is usually quite obvious on x-ray examination. It is extremely important that one analyze the relationship between the tibia and fibula very carefully in order to determine that there is no separation between the two. Actually, the vast majority of fractures around the ankle are so-called malleolar fractures (Fig. 9). If they have been complete, they have been accompanied by some dislocation of the ankle (Fig. 10).



Fig. 9. Bi-malleolar fracture. All ligaments intact. This is the same force which is illustrated in figures 3 and 6. In this particular case the dislocation was probably not complete since the fibular fracture was apparently incomplete. This should be treated by replacement of the medial malleolus and internal fixation, no treatment being necessary on the lateral side of the ankle.



Fig. 10. This is a classical illustration of eversion force. It is the same wide dislocation of the ankle as revealed in figure 6. In this instance the medial malleolus was pulled off, the tibiofibular ligament ruptured, the fibula moved widely lateral, the interosseous membrane at the lower third of the leg held and the fibula ruptured at this level. It could have broken at any level as far up as the neck. It is noted in the repair that the fibular fracture, being unimportant, is ignored. The medial malleolus was fixed with screws and the fibula held to the tibia by a long screw. This was done some 15 years ago. I would presently use longer screws through the malleolus, one or two being used depending upon the size and stability of the fragment. As a rule, all the screws should transfix the opposite cortex.

If there is a fracture of the lateral malleolus, there is frequently avulsion of the medial collateral ligament. If there is a fracture of the medial malleolus by an inversion force, there may be an avulsion of the lateral ligament. If there has been a fracture of the medial malleolus because of an eversion force, either the lateral malleolus must be broken, or the tibio-fibular ligament ruptured. The same force which causes a bi-malleolar fracture may cause fracture of the medial malleolus with ruptured tibiofibular ligament or rupture of the medial ligament and rupture of the tibiofibular ligament with no fracture at all.

Thus, it can be seen that the treatment of ligament injuries and fractures to the ankle are inseparable since if the two basic goals are borne in mind—namely, the integrity of the ankle mortice and the normal weight bearing surface—the treatment indicated will become quite clear. Actually, it is not usual for the weight bearing surfaces to be involved. Ordinarily the lower end of the tibia and the upper end of the talus are not fractured in ankle injuries so that what is actually being discussed is the malleolar fracture. This is caused by the same forces which cause sprains.

In bi-malleolar fractures, it is virtually impossible to obtain and maintain accurate correction of both fractures without internal fixation. In these cases, internal fixation has long been the rule. The excellent results obtained by this method have encouraged me to apply it to injuries apparently less severe. With fracture of the medial malleolus accompanied by a tibiofibular separation, I feel that open reduction should be carried out, with internal malleolus accurately replaced and held by screw or some other method of fixation. At the same time, the tibia and fibula should be held together by a long metal screw. If the injury is a fracture of both malleoli, it is better to use internal fixation on both sides unless the lateral malleolus is quite stable after reduction.

The techniques of these various surgical procedures are readily available elsewhere and need not be described here. Surgery should be carried out only by one well versed in the anatomy. The proper surgical environment is a *sine qua non* to success.

Since in many instances open surgery may be simpler to do and easier to manage postoperatively than manipulative treatment, it follows that adequate preparation is essential before any physician should attempt to manage a serious fracture or dislocation about a joint.

Only by extreme care in examination, conscientious selection of the best method and thorough preparation in technique can one expect to obtain optimum results in treatment of injuries about the ankle. •

University of Oklahoma School of Medicine, Dept. of Orthopedic Surgery and Fractures.

(Continued from page 1276)

REPORT FROM THE WASHINGTON OFFICE OF AMA:

can Medical Association, fell by the wayside in the House during the closing hours of the session, after having cleared the Senate with no trouble whatever. This also will be pushed next year, and may have a better chance of passage because of the growing emphasis on need for solving the problems of the aged.

Far too late for passage, Chairman Olin Teague's House Veterans Affairs Committee reported out a bill that would make a number of changes in VA hospitalization procedures, liberalizing some and tightening up on others. The bill also would require VA to open 5,000 beds over which Mr. Teague and VA Administrator Whittier have been squabbling for months, the latter maintaining that the beds are not needed. That issue still is unresolved, inasmuch as the bill did not pass.

Congress did roll out a sizeable list of medical-health laws. It ordered the calling of a 1961 White House Conference on the Aging, gave Food and Drug Administration authority to enforce its pre-testing standards on foods to which chemicals and other substances have been added, authorization loans as well as grants under the Hill-Burton program, authorized grants for the country's schools of public health and for civil defense purposes, raised military and VA physician's pay, and required labor and management health and welfare plans to make reports and open up their books for inspection by members.

American Medical Association was able to persuade the Department of Defense and the administrator to retain the post of Assistant Secretary (health and medical) in the reorganization, one of the assistant secretary posts would have been eliminated, and the medical assistant was marked for down-grading. However, Secretary McElroy eventually announced that the position would be continued.

Even before Congress adjourned, it was clear that trouble was in sight for Medicare because of inadequate appropriations and instructions from Congress not to exceed the appropriation. To keep within the limitation, if possible, Defense Department was channeling many thousands of service families to military facilities, and at the same time limiting the scope of care permitted in civilian facilities.

William J. Kennard, M.D.

Repair of Tendon Injuries in the Hand

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The repair of tendon injuries to the hand is not by any means a settled problem. Much of the problem is inherent in the tissue itself, in its manner of healing and in the functional demands put upon it. Other factors in the problem concern the surgical procedures themselves, not so much the gross techniques as the manner in which the surgeon carries it out. There are other facets, too, having to do mainly with associated conditions—for example, combined skin, bone, tendon and nerve defects in the immediate case, and scars and contractures in the secondary case. An adequate discussion of tendon surgery of the hand would expand into a volume.

Tendon Characteristics

Tendon is a highly specialized tissue which subserves the function of transmitting the pull of a muscle to some bone which is thereby moved by it. It is, however, by no means simply an inert rope, but is living tissue which responds to external stimuli and is very sensitive to trauma. It is composed of long fibrils of collagen (Fig. 1), held together rather loosely by an interfibrillar cement substance. Tendon cells themselves are not abundant and are scattered throughout this fibrillar tissue as flattened and elongated structures outside the collagenous components. The fibrils will withstand an enormous amount of pull if this pull is directed parallel to the fibers. If, on the other hand, pull is made transversely to the fibers, they separate and fray out like the bristles of a broom.

Circulation of tendon (Fig. 2) is not generous, but by no means absent, as in cartilage. Vessels enter the tendon from either end and course through it in longitudinal fashion. Vessels also come in from the sides. In the case of one type of tendon, blood vessels come in from all sides; in another type, these entering vessels come in

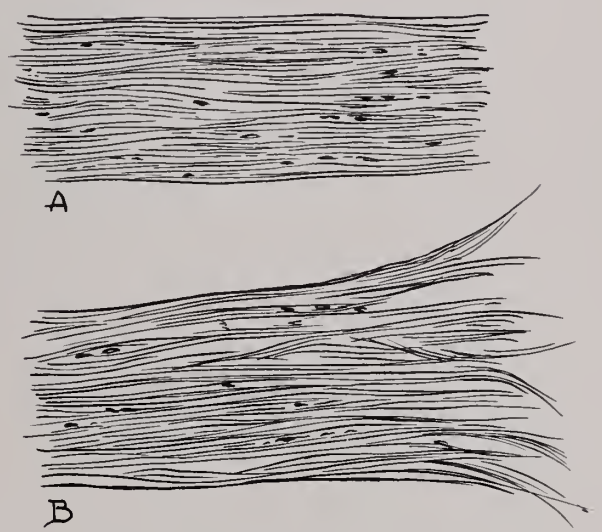


Fig. 1. (A) Tendon is composed of long strands of collagen interspersed with flattened tendon cells and bound together loosely. (B) When the outer peritendineum is torn the tendon frays out in a very discouraging fashion.

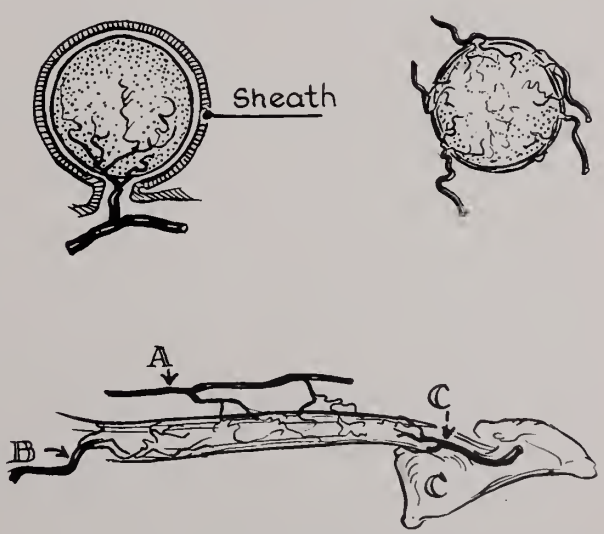


Fig. 2. Circulation in tendon is not generous but comes from three sources: (A) from the surrounding tissues, (B) from the muscle from which it originates, and (C) from vessels about the area of insertion. In case of sheath enclosed tendon, the vessels come in through a mesotenon along one side of the tendon. Tendons not enclosed in sheaths receive vessels on all sides from the surrounding lax tissue known as paratenon.

Sommer Memorial Lecture. Presented at meeting of the Oregon State Medical Society, Portland, Oregon, September 5, 1958.

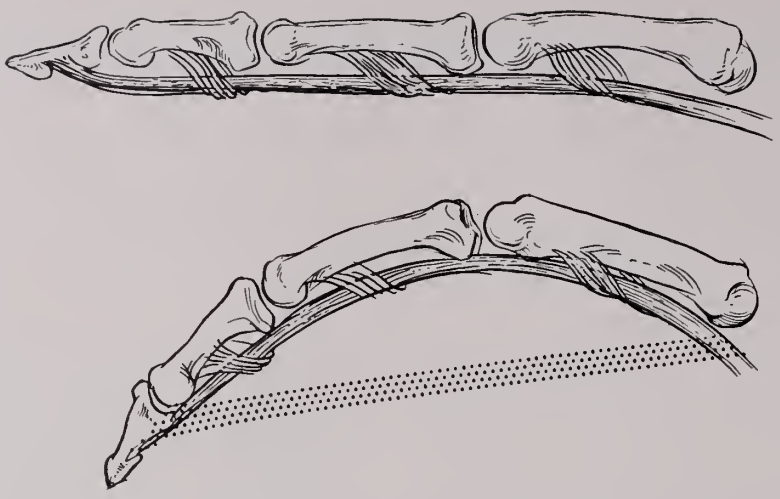


Fig. 3. Tendon which subtends the arc of movement of a joint—e.g., flexor tendons on the digits, flexors and extensors at the wrist—are held against the bone surface by fibrous ligaments. If this did not obtain, the tendon would bow-string forward when the muscle contracts.

along one side only and in very much condensed ligament-like structures known as mesotendons or vincula.

Accessory Tissues

Tendon which runs a straight course lies within lax areolar tissue known as peritenon, and, although this is attached to the tendon surface and carries in numerous vessels, it permits the tendon to move back and forth through its necessary course. In those areas where it is necessary for tendon to pull along a curved line (Fig. 3), the tendon is held against the underlying bone surface in a canal which permits the enclosed tendon to glide through it and not pull itself out of position. These are the sheath-enclosed tendons, and they are found over any area where pull would draw the tendon away. Such areas are found in the wrist, both volar and dorsal, where the transverse carpal ligament on one side and the dorsal carpal ligament and its compartments on the other hold the tendons in their course. The volar surfaces of the digits are also supplied with vaginal ligaments and tendon sheaths. There are no such ligaments on the dorsal surface of the fingers, and here the pull of the extensor tendon does not draw them away from the surface of the bone.

Tendon is living tissue, very sensitive to vascular disturbances. It may survive by imbibition of nutriments from tissue fluids for a short period of time and if the tendon is not too large. Hence, tendon grafts should be small. However, if vascular connections are not soon established with surrounding tissues, the tendon dies. This has considerable significance in tendon repair and tendon grafting. The site of suture of the tendon graft should lie in loose areolar tissue and should not be completely encircled by a rigid osteofibrous canal.

Three Phases of Healing

A study of the manner of healing of tendons is, likewise, helpful to the surgeon in his attempts at tendon repair, either by graft or suture. When two tendon ends are brought together by suture, their union takes place in three phases. There is first an exudative cuff laid down around the site of repair which coagulates and fuses the two opposed ends together. The union due to this fibrinous cuff is very weak and is not sufficient to do more than keep the ends lined up. The sutures themselves hold the tendon ends in apposition for the first 24 hours or so, but after this their holding power drops to almost zero, since the tendon softens and sutures pull out of it with the greatest of ease.

Toward the end of the first week, the fibrinous callus begins to be organized into fibrous tissue, still soft and easily ruptured, but, nevertheless, with gradually increasing holding power. The tendon itself has taken very little part in the healing process up to now, although one can see evidences in the tendon of cellular increase.

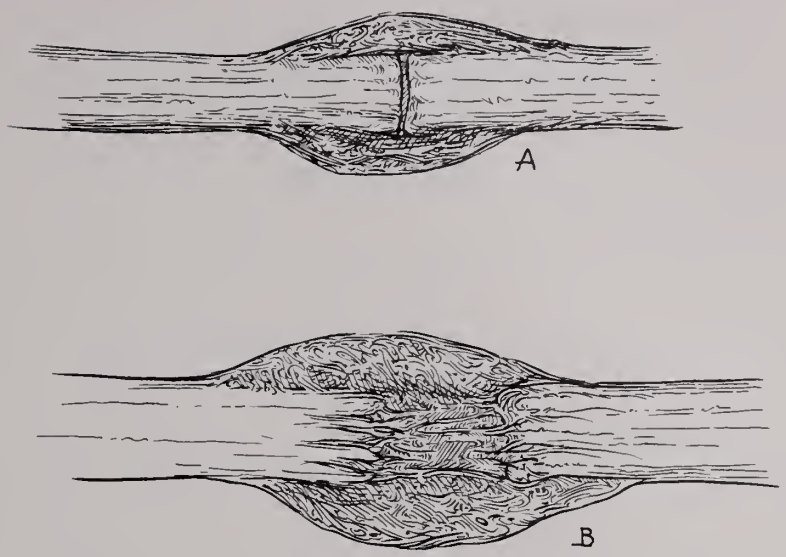


Fig. 4 Tendon heals normally by the production of a callus which comes initially from surrounding tissues and later from tendon itself. This forms a moderate enlargement (A) at the site of union. This callus is quite responsive to trauma and if pull is made upon it too early (B), it responds by becoming thicker and heavier and the enclosed tendon ends tend to pull apart or may even separate.

Toward the end of the second week the tendon component of healing seems to be coming into its own. The gap between the tendon ends is filled with a granulation-like tissue and into this come strands of cells from each tendon end. With the advent of this ingrowth, the union becomes firmer and more solid and its tensile strength increases quite rapidly.

From now on the tissue between the tendon stumps becomes more and more dense; the nuclei tend to line up in long parallel rows, and, by the end of the third week, the union due to external callus plus gap tissue becomes very strong. A fair amount of force is required to rupture it.

After the third week, in a successful repair, the strength of union rapidly increases, and by the end of the fourth or fifth week is strong enough to permit use.

Source of Repair Substance

Elements of the initial union, and the blood supply to the healing tendon come from the tissues immediately around the site of repair. Exudate from this source and the blood vessels penetrating it form a strong cuff which fuses the whole area into a solid, continuous mass. This fusion with surrounding tissue is an essential element of tendon repair. If it does not take place, union fails to occur.

In a successful repair, however, a curious change occurs in the surrounding cuff. Whereas earlier it was solid, continuous tissue, spaces begin to develop in it, and it begins to assume a looser structure. This develops over a period of many months so that in the end the tendon comes to lie in loose areolar tissue, often with spaces resembling a tendon sheath, which permits it to glide.

Effect of Motion

The effect of early motion upon the site of union is very interesting and gives us a clue as to the period of immobilization (Fig. 4). If motion is started very early, the tendon ends pull apart. Later on, the ends may not separate entirely but the callus about them becomes heavier and heavier, and the connections with surrounding tissues more and more extensive. The callus reacts to the strain put upon it and becomes thicker and thicker. While this increase in size of the callus would seem to make the union stronger, measurements of the strength of this union show that the thick callus is scarcely stronger than a smaller callus of a similar age which has not been subjected to strain, while size for size it is weaker. The disadvantage of this thick callus lies in the fact that it comes largely from surrounding tissues and may remain firmly adherent to them. If such a callus

forms within the osteofibrous tunnel on a finger, it firmly fixes the tendon to the walls of the tunnel, and its very bulk would prevent it from passing under the pulleys.

The conclusions reached from a very brief consideration of the process of tendon healing indicate that not only should we take the tendon into consideration, but the surrounding tissues as well. These tissues should be well vascularized, soft and flexible so that the connections between them and the healing tendon will act somewhat like the peritenon of the extensor tendons over the dorsum of the hand. To pursue this point further, in those areas where the suture line would lie within the fibro-osseous tunnels (e.g., carpal tunnel, digital tunnels), one of two procedures should be practiced. Either the tunnel is unroofed so as to permit the soft areolar tissue about it to fall into the area of repair, or some procedure is carried out that permits the line of repair to lie outside the tunnel so that only smooth non-traumatized tendon lies in the tunnel.

As for the tendon itself, its relatively meager vascular supply may be easily compromised and lead to necrosis. It may survive a short period of time by imbibition of fluids from the surrounding tissues. If these tissues are dense fibrous membranes, vascular connections may be quite difficult to develop, and, hence, a thick heavy tendon may be reduced to scar and become completely useless.

The surface of the tendon is covered by a thin sheet of tissue which helps to hold the collagen fibrils together. However, this tissue is easily torn by even very gentle handling and this leads to scar formation. Also, when this tissue is torn, the tendon frays out in a most deplorable fashion so as to make repair a veritable nightmare.

Clues to Immobilization Period

The rate at which tendon heals is the clue as to the period of immobilization. True enough, we are hoping for gliding of the tendon; however, we have seen that too early motion may either cause disruption of the suture line or lead to gross enlargement of the callus. Hence, in order to secure good union, it is necessary to keep the ends of the tendon in apposition for three weeks without permitting any motion at all, and then to permit guarded motion only for a further seven to fourteen days. At the time of release from splinting, the surrounding callus is solid and adherent. This is unfortunate for motion but cannot be avoided since one must first secure union. The appearance of lacunae in this callus takes place gradually over a period of months, and there seems to be no magic means of hastening this process. We do know, however, that it is unsafe to start motion too early or to delay it too long. Also it is very difficult to predict the outcome of tendon repair much under three to four months. Even after this, if moderate motion has developed, we may anticipate improvement over the period of a year.

An unsolved problem is the tension under which tendons should be sutured. When end-to-end suture is carried out in instances where there has been no loss of tendon tissue, obviously the ends are simply sutured to each other. However, the situation is different in older cases in which the retraction of the proximal stump is due not only to muscular action, but there is also an absolute shortening of the tendon-muscle due to fibrosis in the muscle. In these cases also, it may be necessary to sacrifice some tendon length from the proximal stump because of necrosis. Here a defect is produced which must be bridged by a graft. How long should this graft be or what is the tension under which it should be placed?

We can usually assume two things: 1. The muscle itself assumes a sort of neutral position. It is neither completely relaxed nor completely contracted. 2. The range of activity of the muscle, however, is restricted due to contracture, and, hence, with long-standing injuries, we cannot always anticipate securing a full range of motion. We can anticipate that, with exercises and elastic traction splints, the contracted muscle can be stretched out somewhat, but probably never completely.

Over-Correction

If the hand is permitted to fall into the position of rest—i.e., if the hand is supinated on the arm board and the digits permitted to fall naturally into position—they will flex at all joints about 25 to 30 degrees. This flexion, however, becomes increasingly greater from thumb to fifth finger. The finger without a tendon will not flex and will have to be brought into flexion by passive motion. The graft is then placed at that tension which will bring the finger down into slightly more flexion than the neighboring digits. In other words, the deformity is over-corrected. If the surgeon errs, it should be on the side of over-correction rather than under-correction.

How are the tendon ends to be held in apposition? The obvious answer, of course, is by

suture, but the solution is not nearly so obvious. We have seen that sutures will hold for a short period of time only and that they tend to pull out very easily. Increasing size of the sutures does not help, but is actually harmful, since it increases the necrosis and reaction in the stump.

Suture Methods

Various methods have been tried to maintain end-to-end apposition. Various types of sutures have been developed to secure a strong hold on tendon ends. The basis of all of them is to transfer the pull of the suture from one parallel to the collagen fibers to one transverse to the fibers since through-and-through types of sutures simply pull out. Many of the various methods work very well, but all demand practice, gentleness in handling the tendon and fine suture material. Effort is made to avoid placing knots between the tendon ends, and to avoid sutures which constrict or compromise blood supply.

Bunnell developed the pull-out wire. In this technique, the hold in the tendon is placed well above the actual line of apposition so that it lies in normal tendon and not in the zone of healing. Pull on it brings the ends together where they are held by passing the distal ends of the wire through the proximal stump on through the digit to be tied over a button outside. Thus, the pull of the proximal stump does not work on the line of apposition but on the wire only. This technique has the advantage of removing all sutures from the tendon after solid healing has occurred. It must not be assumed, however, that this technique was devised to permit early motion. Bunnell splinted his cases following this type of suture.

Another method, which is never used any longer, was to paralyze the muscle of the sutured tendon with novocaine. So far as I have been able to discover, this method was not very successful.

Splinting

In all methods for maintaining apposition of tendon ends, external splinting is used. Splinting is in the position to relax the line of suture. Thus, if flexor tendons are repaired, the wrist and involved fingers are held flexed with all joints at about 45 degrees. If extensor tendons are repaired, the wrist is extended about 45 degrees while the involved digits are brought out into extension. To be avoided, however, is complete extension to 180 degrees, especially of the metacarpophalangeal joints. A slight amount of flexion is needed here to prevent contracture of the collateral ligaments of these joints and an extension deformity which is most difficult, if not impossible, to correct.

The period during which immobilization is needed is indicated by studies on the tensile strength of healing tendons. For usual repair, three to four weeks of continuous rest are required to insure a union strong enough to allow guarded activity and two to three weeks longer with restriction on use, before full use is permitted.

How Should Results Be Judged?

Some other generalities are worthy of discussion. The question which surgeons are trying to solve concerns criteria for end results; and an attempt is made to grade the hand according to the percentage of motion attained by tendon repair. So many factors come into consideration that it is almost impossible to take them all into account. A perfect result is practically never achieved; there is always some restriction of motion, however slight.

If we take function as the basis for grading tendons, we must take into consideration the use to which the hand is put. A concert pianist or violinist who has lost 15 to 20 degrees flexion of the tip of the left little finger may still be able to play but probably never again in concert class. Obviously, if we were to judge end result on a 15 to 20 per cent loss of use of the left fifth finger, we would not be expressing at all the loss which he or she has sustained. On the other hand, a laborer or a surgeon would suffer no actual functional loss. If a patient has suffered division of all tendons to the hand, which is thus rendered entirely useless, even a modicum of motion in the fingers following surgery is enough to enable him to dress, take care of himself at toilet, eat and do many kinds of work. Yet, if we were to put a percentage value loss on the hand, it would be almost 100 per cent of that which it was previous to surgery. Can we say this operation was a failure because he gained only a few percentage points in function? I have one patient, a carpenter, who suffered a circular saw cut to his left hand dividing nerves and tendons to the thumb, index and middle finger, and amputating the ring finger. He was seen several weeks following injury with the hand still swollen, and useless. After several more weeks of home physical therapy, conscientiously practiced by a patient who desired to get well, the hand became pliable enough to

warrant surgery. Three tendon grafts and six nerve sutures were required to attempt correction of the loss. No brilliant 100 per cent function was restored, nor did we anticipate it. However, he was able to return to his old work. He could pick up nails and hold them with the injured hand, not as well as before but sufficient to return him to work. Final results cannot be stated in percentages.

The foregoing is not presented as an excuse for mediocre end results in tendon surgery. We must always strive to gain perfection. On the other hand, however, we must not refuse surgery to the man with a severe crippling injury, simply because we cannot hope for a brilliant end result, if we can render the hand functional.

Stimulus of Mild Tension

We have stressed the need for immobilization following repair of tendons, but have said nothing about the effect of function on the development of the union. If we examine tendon during the growth of the uniting tissue in the very early stages of growth, the nuclei are abundant and show no evidence of any definite arrangement. Very soon, however, these nuclei begin to line up in long parallel rows in the direction of the line of pull of the tendon. In instances where suture has failed and the growing tissue fails to unite the two ends, the cellular arrangment remains haphazard. It has been postulated that the minute tonic contractions of the muscle act as a stimulating force to the growing tissue which lines itself up along the line of pull of the tendon. Our own experiments, likewise, indicated that this functional stress had considerable influence on the growth of the tendon. When stress was put on the growing callus at an early stage, the callus became more and more exuberant. When absolute rest was assured, it remained smaller and less bulky. After the third week, it seemed to us that use of the tendon led to increased rate in regaining tensile strength. This is an example of Wolf's law—that form follows function.

How to make use of this factor is the difficult problem. Probably simply the normal tonic contractions serve the purpose well at the start. If, however, we could so utilize the motion in a gentle way all along, it might be possible to free the tendon from the surrounding callus more quickly and more surely. It is no problem to secure union of tendons, but it is often a real problem to get them to glide afterwards.

Primary vs Secondary Repair

The repair of the tendons of the hand falls into two categories—that of primary repair and that of secondary repair.

In the case of primary repair, the controversy today centers especially about the indications for it. Should divided tendons always be repaired at the time of initial care of the wound? Many of the indications have to do with the condition and location of the wound, and with the condition of the patient. Others have to do with the ability of the surgeon and facilities available to him.

There are certain general considerations which apply, regardless of location of the wound or tendons involved. A vital consideration is the degree of contamination of the wound and the possibility of infection developing. Contamination of the wound by virulent invasive organisms may occur at the time of infliction when the injury is due to badly contaminated objects, such as human teeth, autopsy knives, broken sputum cups, or toilet plumbing. Such wounds should never be closed, and tendon surgery is out of the question. Ordinarily, however, such serious contamination does not occur initially, but virulent contaminants may gain access to the wound secondarily when first-aid has been poor, or when the wound has been tampered with and fingered without aseptic precautions being taken. In such wounds, primary tendon surgery is seldom, if ever, feasible. If any doubt exists, the wound should simply be closed and tendon repair carried out later.

Time

Time since injury is also an important factor despite the present tendency today to disregard this element under a protective screen of antibiotics. To my mind, the tenets of Friedric still hold, and a wound over eight hours old must be looked upon as infected—not just contaminated. For tendon repair, I feel eight hours is too long an interval except, possibly, for extensor tendons over the dorsum of the hand. Four to six hours post-injury should be the upper limits, and, in case of injuries involving the flexors in the fingers, two hours seems better. How rigid one should be in following these time limits is a matter of personal opinion. There is no doubt but that these limits may be overstepped from time to time, and no evil results follow. However, these are safe time limits and, unless exceptionally favorable conditions exist, they should be observed.

The nature of the injury, itself, is also important. Wounds vary in the amount and extent of tissue damage, and the greater the damage to tissues, the less the indications are for primary tendon repair. Sharp cut injuries from knives and glass and similar sharp objects cause no tissue damage beyond the actual line of tissue division. Many structures may be injured, multiple nerve and tendon injuries may be present, but, unless other considerations contraindicate, repair may be carried out at the primary operation. On the other hand, crushing wounds lead to extensive tissue injury, extending over a widespread area. Damaged tissue may demand very wide excision and even that left behind, while viable, may be capable of healing if no further burden be added to it. The presence of fractures contraindicates primary repair since the healing fracture and healing tendon are certain to become adherent to each other.

Cover

Wounds associated with loss of covering tissue are rarely suitable for primary repair. It is imperative that the site of suture be covered with good skin, and this must often be provided by a skin graft, followed by a flap, following which tendon repair may be carried out. Thus, these patients must often wait several months and undergo two or more operative procedures before repair of the tendons can be undertaken.

The site of the tendon injury has become quite a center of controversy in determining indications for primary repair. This controversy concerns especially the flexor tendons in the digital canals. For defining areas of the hand in relation to indication for primary repair, it has become customary first off to separate the flexors from the extensors. In general, the indications for primary repair of the extensors are somewhat more liberal than for the flexors. But this does not hold 100 per cent by any means. Finally, it is not so much the method of repair as the manner in which it is carried out that counts.

Extensor Tendon Repair

Extensor tendons, if divided over the wrist where they are enclosed in tendon sheaths, tend to retract quite a distance. However, they may be exposed by proper incisions, and, if other indications are satisfactory, primary repair may be undertaken up to six or eight hours post-injury. Over the metacarpus, the extensors retract very little, and primary suture is carried out easily. The same holds for divisions over the metacarpophalangeal joint. Here the joint capsule also is usually divided and must be closed. Injury of the central slip of the extensor aponeurosis over the proximal interphalangeal joint should be repaired primarily, if at all possible, since, if it is allowed to persist for any period of time, the upward retraction of the proximal stump and the volar displacement of the lateral slips lead to a peculiar deformity which may be difficult to correct. Should primary repair be contraindicated, it is important to keep the finger splinted in extension at the proximal interphalangeal joint until repair may be carried out.

Baseball Finger

Division of the extensor tendon over the distal interphalangeal joint is commonly seen as a baseball finger and is most often due to a closed injury whereby the terminal phalanx is acutely and forcefully flexed while the extensor tendon is pulling it strongly into extension. Rupture takes place at or just proximal to insertion where the tendon is extremely thin.

Whether or not this injury should be treated conservatively or by surgery is somewhat a matter of controversy. If the wound is an open one, primary repair should be done if other indications permit. If suture is contraindicated, the finger should be splinted with the distal joint completely extended and the proximal interphalangeal and metacarpophalangeal joints very slightly flexed (10 degrees or so) so as to avoid capsular contractures, which occur if these joints are completely extended.

If the injury is a closed one, the surgeon should always secure an x-ray, since there is often an avulsion of the bone of insertion rather than tendon tear. In that case, splinting only seems indicated.

If there is no bony avulsion, one of two courses may be taken. The area may be exposed through a bayonet incision and the tendon sutured with very fine silk. The wound is closed and the finger splinted out as will be described below.

The surgeon may elect, however, to treat the tendon division by splinting alone, and it should be said that splinting is generally sufficient. The finger should be splinted in such a way as to relax the tendon. To do this, the distal interphalangeal joint should be hyperextended, and the proximal interphalangeal joint extended. In the first week or so following injury, I have

found it helpful to splint the finger and wrist in very slight flexion of the metacarpophalangeal joint and about 45 degrees of extension of the wrist. Following the first week or so, the finger only requires splinting, and at the interphalangeal joints only. Many surgeons feel that the proximal interphalangeal joint should be splinted in flexion, since they maintain that the extensor pull of the lateral slips is relaxed thereby. I am not entirely sure that this is the case.

The finger may be splinted by external splints of various sorts, by plaster, or by internal splinting with a Kirschner wire. Pratt, Bunnell and Howard have treated a goodly series by means of internal wires and report very good results.

The tendon heals spontaneously, but with a soft callus which requires about six weeks to become sufficiently strong to extend the tip without stretching. As a matter of fact, after six weeks of continuous splinting the patient should wear a splint of some sort at night to prevent the more powerful flexors from stretching the callus, and often, regardless of the method of repair, the healed tendon very frequently stretches and perfect extension is seldom seen. Even if neglected, however, it is seldom that some healing does not occur. There may be very moderate droop or quite marked but some active extension is usually present. The tendon will heal, even if lengthened and the callus eventually matures into quite strong tissue.

Spontaneous repair will occur quite frequently in the case of the paratenon-covered tendons over the dorsum, provided proper splinting is carried out. From time to time a patient will present himself 24 hours or more following an injury for which nothing was done initially. Such a wound must not be sutured, nor can tendon repair be carried out. However, it is a comfort to know that spontaneous tendon union can occur even if no suture is possible. This spontaneous repair will not take place in the sheath-enclosed tendons, nor in the flexor tendons anywhere along their course. Therefore there is nothing to be gained by splinting of the flexor tendon injury in flexion when suture has not been possible.

Flexor Tendon Repair

The situation with regards to the flexor tendons is somewhat different from that of the extensors. Injuries of these tendons have been divided into several zones, depending upon varying situations met with in the hand. Zone I covers that portion of the tendon of the flexor profundus from the middle of the middle phalanx to the insertion. Here the profundus is the sole tendon in the sheath, and, if it is divided, it can be advanced slightly and sutured to the distal stump. The fibrous sheath over the site of suture should be excised, taking care to leave a narrow pulley, but this pulley should lie as far proximalward as possible so that it will not interfere with the gliding of the suture line.

Zone II extends from the proximal end of Zone I upwards to the end of the fibrous tendon sheath in the palm. In this zone, there lie the two slips of the sublimis tendon, and, passing between these slips to reach the distal phalanx, is the profundus tendon. In other words, there are three tendons enclosed in a rigid-walled, osteofibrous canal. Conditions here for tendon suture are very unfavorable. The canal has just enough space to permit the enclosed tendons to glide. If any enlargement occurs, such as would take place if suture were carried out, blood supply of the tendons would be compromised and necrosis would probably result. If necrosis did not occur, the callus, receiving as it does its cells and blood supply from surrounding tissues, would be hopelessly fused with the sheath.

Repair in Zone II

Injuries in this zone may divide one or both of the enclosed tendons. If one only is divided, it is almost always the profundus, since here it is the most superficial, at least over most of this area. In this case, it is indicated simply to cleanse and close the wound initially. Repair of this injury will require a tendon graft of very thin tendon passing through the sublimis fork.

Many surgeons advise against any tendon repair and simply fuse the distal joint in slight flexion by an arthrodesis or tenodesis. It is my feeling, however, that a graft is worthwhile. If it is quite thin, it can be led through the sublimis fork easily and a very narrow pulley is left over the middle phalanx. If active motion is secured, the patient has better control of the distal phalanx, even if the motion is limited. If no active motion is secured, the patient has the same result as if an arthrodesis had been carried out.

When both tendons in the canal are divided, which is most usually the case, the surgeon who initially sees the patient has a real problem posed to him. Should he attempt repair, or should he simply close the wound and plan on secondary repair by graft later? To arrive at an

answer, let us leave out of consideration all of those instances in which tendon surgery is definitely out; e.g., wounds more than four to six hours old, those badly contaminated or those associated with fractures or crushing injury, all of which preclude any type of tendon surgery. Should one attempt primary repair, even under the most favorable circumstances? There are many surgeons, and they seem to be in the majority at present, who state categorically that primary suture is absolutely contraindicated, no matter how clean the wound and favorable the circumstances. They point out that tendon suture in this rigid canal will end up by adherence of the tendon to the walls of the tunnel and that secondary repair by graft after that is very difficult. They point to the almost uniformly poor results of this procedure.

It is my opinion, however, that one sees, from time to time, a case in which primary repair is permissible. These are very infrequent and one can say that, as a general rule, unless the best of circumstances obtain, simple closure of the wound is best.

What are the conditions in which primary suture is indicated? First off, the wound should not be over a few hours old, under two at best and not over three at most. It must have been sustained under reasonably clean circumstances; e.g., from knife or glass cut. It must have been covered at once with a sterile, or at least a clean dressing. The dressing should not have been removed elsewhere for inspection or for attempt at repair. The general condition of the patient should, of course, be satisfactory. The equipment and suture material available should be satisfactory, and the surgeon should have a competent assistant. Finally, the surgeon, himself, should be skilled in tendon surgery. This latter is very important, and there should be no hesitancy on the part of a surgeon to forego this repair if he has not had training in it.

Sublimis Removed

If primary suture is undertaken, there are one or two steps in the procedure which can be emphasized. Only the profundus is repaired—the sublimis is removed. There is some controversy as to whether the sublimis should be cut off right at its insertion or whether a short bit of it should be left subtending the joint so as to prevent hyperextension deformity. I do not think it has been shown that this deformity is due to lack of sublimis over the anterior joint capsule. If leaving it in will prevent the deformity, it should be left in since, if hyperextension occurs, it is most difficult to correct.

The reason for frequent failure of suture within the sheath lies in the rigid nature of its walls. The tendon callus, formed as it is from surrounding tissue, is densely adherent to the walls, and hence tends to form insoluble adhesions. Also, as the callus increases in size, it may compress the blood supply of the healing tendon and lead to necrosis. To prevent these two eventualities, it is necessary to excise a window in the fibrous sheath over the site of tendon repair. This window insures that the healing tendon comes in contact with soft areolar fatty tissue over at least three-fourths of its circumference, and that the vascular connections may be lax enough to permit motion.

Palmar Zone

So much for the so-called no-man's land on the volar surface. The division of tendons in the palmar zone is ordinarily amenable to primary repair. It is usually possible to repair both profundus and sublimis tendons and shift the lumbrical muscle between the suture lines. Some surgeons advise suturing the profundus only and removing the sublimis. A successful end-result in either case is satisfactory, but function is somewhat better when both have been repaired.

Division directly in the carpal tunnel is quite rare and usually repair can be so carried out that suture lines of tendons are separated from each other by remnants of synovial sheaths. The tunnel should not be tightly closed, but should be left open, suturing the subcutaneous tissue only.

Injuries at the Wrist

Injuries in the wrist and lower forearm cause most distressing contractures if early correction is not carried out. Hence, every effort should be made to carry out primary surgery in these injuries. There may be as many as 12 tendons and two large nerves divided so that primary repair may, and frequently does, take four or five hours. While it is helpful to repair both sublimis and profundus tendons, no criticism can be made if only the profundus tendons are repaired. The flexor pollicis longus and carpal flexors should, likewise, be sutured, but the palmaris longus need not be sutured.

In those instances in which primary tendon repair cannot be carried out, the wounds are closed and allowed to heal. In the uncomplicated case, when healing has occurred by primary intention, secondary repair may be carried out.

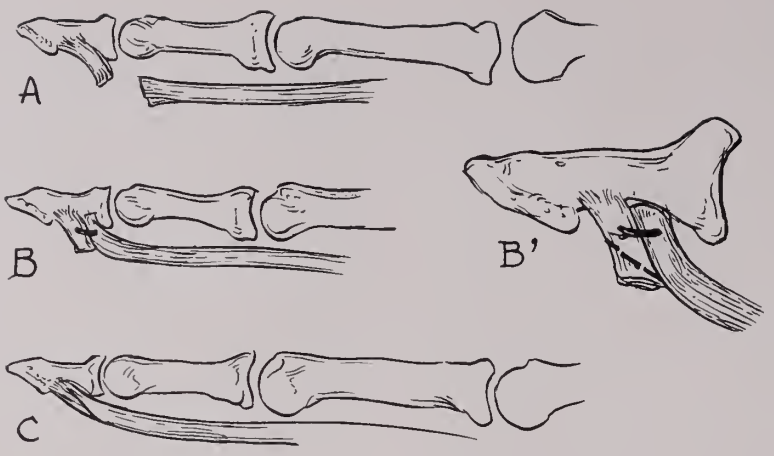


Fig. 5. The tendon graft is attached distally by snubbing it beneath the distal stump of the profundus against the periosteum of the distal phalanx. Care must be taken to go as far distal to the joint as possible and to avoid damage to the joint capsule.

With smooth healing, this can be done in three to five weeks at which time, if there has been no injury to the sheath, the tissues will be smooth and clean.

If there has been a reaction, or if the finger has stiffened and the tissues have become indurated, it will be necessary to spend some time mobilizing joints and taking measures to reduce the edema and stiffness. Not until the maximum improvement has been obtained should tendon repair be undertaken. It may be necessary in some cases to divide joint collateral ligaments to use traction splinting, or to replace scarred skin with a pedicle flap before the tissues will take a graft.

In previous pages we discussed the philosophy of functional restoration of the hand and pointed out that, although we should strive for a perfect result, we should not deny surgery to a patient whose hand is so badly scarred that only a modicum of motion can be obtained. We must, of course, be certain that the maximum mobilization has been secured and the tissues are in the best obtainable condition.

Grafts

Secondary tendon repair, particularly on the volar surface of the fingers, can rarely be accomplished by suture. Ordinarily a tendon graft is required, except occasionally in case of profundus division on the middle phalanx.

Tendon for grafting may be obtained from the palmaris longus, if only one tendon is required, or from the dorsom of the foot, if more are needed. Some surgeons have utilized the plantaris when an especially thin and long graft is required—e.g., grafting through the fork of the sublimis for profundus replacement.

The finger should be opened widely to uncover the whole involved area so as to remove remnants of the flexor tendons and scarred remnants of the tendon sheath. Two narrow pulleys about one-quarter inch wide should be left over the middle and proximal phalanges. The incision we prefer is a mid-lateral one which starts obliquely across the volar surface of the distal phalanx about midway between the distal crease and the tip and passes up the mid-lateral surface of the finger. I like to go volar to the nerve and vessels. In case of the index and little fingers, the incision can be prolonged along the side of the hand, and then transversly across the palm so as to expose the whole tendon. In case of the middle and ring fingers, this prolongation cannot be carried out. Instead the digital portion of the incision stops just distal to the proximal crease and is then carried transversely across the finger. The proximal end of the sheath may then be uncovered through an oblique or transverse incision in the palm.

After the digital canal has been cleared out, the proximal stumps are sought in the palm and are mobilized. It is my practice to divide the sublimis after pulling it as far distally as possible and allowing it to retract. The profundus stump with lumbrical muscle is then freed from adhesions and is exposed fairly well up in the

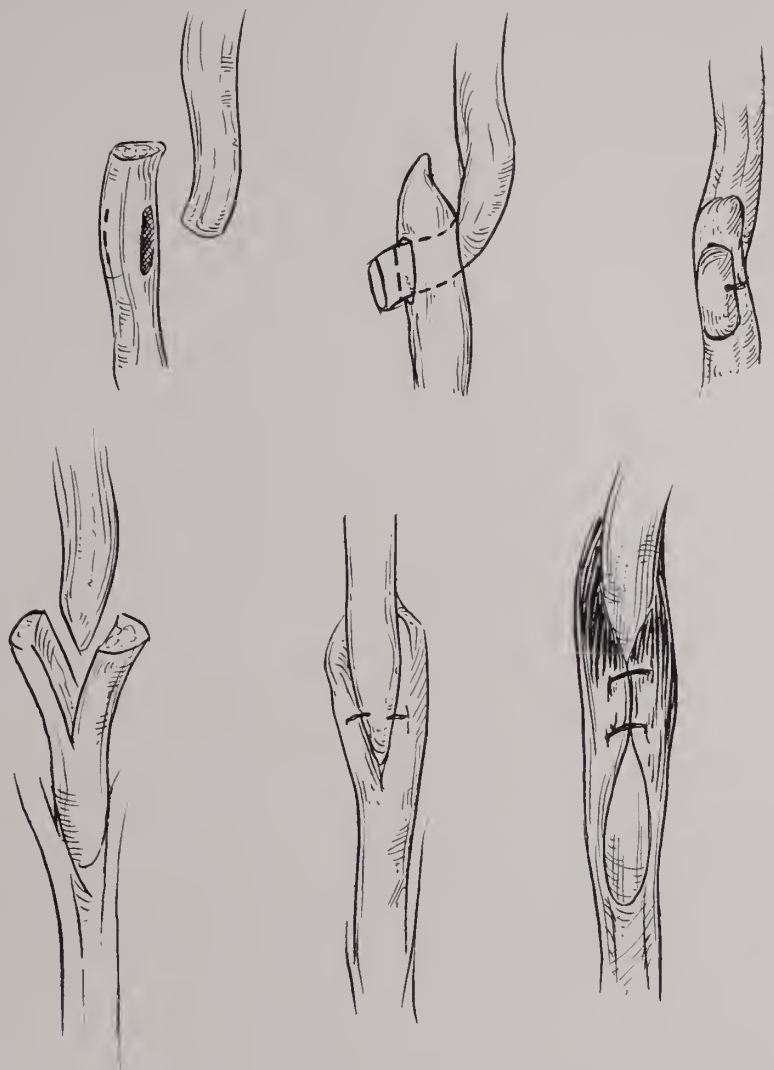


Fig. 6. The tendon graft is inserted in the proximal stump of the profundus at the level of the lumbrical muscle. It may be led through a small buttonhole in the profundus, or inserted into a fish tail division of the tendon. In either case the lumbrical muscle is tacked about the line of suture.

palm so as to permit suture of proximal stump to graft in soft areolar tissue of the palm.

Attachment of the graft distally (Fig. 5) is accomplished by snubbing the graft beneath a short section of the distal stump of the profundus and on top of the bone which has been scarified to insure firm attachment. Care is taken to place this attachment well distal to the joint. The surgeon must avoid injury to the joint capsule; otherwise a flexion deformity will occur from fibrosis. Sutures with fine silk (6-0) are all that are needed, since it has been shown by Hauser that tendon attaches itself quite quickly to raw bone.

If it has not been possible to save a pulley over an area of the finger, a pulley should be fashioned from a segment of tendon. It may be passed clear around the finger or attached on either side.

When this distal attachment and fashioning of pulleys has been accomplished, the finger is closed since it can be more easily sutured in extended than in flexed position, as it must be when the proximal attachment is being made in the palm.

The proximal attachment (Fig. 6) is made under the tension discussed above. It may be accomplished either by passing the graft through

a buttonhole in the proximal profundus stump, or by splitting the stump into two halves and putting the graft between them. An actual end-to-end suture is seldom feasible because of discrepancy between the graft and tendon stump. The callus tends to be somewhat bulbous but, since it lies in loose areolar tissue, it does not interfere with motion.

The matter of after-care need not be gone into in detail here. The periods of immobilization have been indicated above. After removal of the splint, it is my practice to encourage the patient to do his own physical therapy. He is instructed to wash his hands four or five times for four or five minutes in warm, soapy water. He is told this is not a matter of soaking, but of actual active washing of both hands. He is instructed to carry out active use of the fingers and told that just wriggling the fingers in the air is not exercise. He is encouraged to use his hand for purposeful acts.

Final results of these procedures should not be assessed too early. Six months should give some clue as to eventual function.

Summary

I have tried to give, in brief outline, the physiology of tendon repair and to indicate, in a general way, the basic principles of tendon surgery. Details of technique have been described only if they seem to illustrate the general facts of tendon healing. I have tried to stress the need for careful, gentle surgery and the need for rest of the healing tendon since it depends for its blood supply on the ingrowth from tissues around it. Without this ingrowth, tendon repair cannot take place.•

154 E. Erie Street, (11).

The Marriage of the Farmer's Daughter

This is the story of a poor peasant in France [in 1846], and the effect that the tariff had on his attempts to provide an adequate trousseau for his daughter.

This particular peasant had planted a few grape vines of his own. After much sweat and time, he harvested enough grapes to make a cask of wine. "I shall sell this wine," he said to his wife, "and buy enough material to enable you to make a trousseau for our daughter."

Our honest peasant took his cask of wine to the nearest town. There he met an Englishman and a Belgian, and began to bargain with them about exchanging his wine for cloth.

The Belgian said, "Give me your wine, and I will supply you with 15 parcels of the material you want."

Then the Englishman entered the bargaining with this offer: "Since we English can manufacture cloth at less cost than the Belgians, I will give you 20 parcels for your cask of wine."

The peasant was about to sell to the Englishman when a custom house official, who had heard the conversation, spoke to the wine owner: "My friend," he said, "trade with the Belgian if you wish, but I have orders to stop you from trading with the Englishman."

"What!" exclaimed the astounded countryman. "You wish me to be content with 15 parcels of material that come from Brussels when I can get 20 parcels that have come from Manchester?"

"Certainly," answered the customshouse official, "don't you understand that France would suffer if you received 20 parcels instead of 15?"

The peasant answered, "No, I don't understand it at all."

"Well, I'm sorry I can't explain it," replied the customshouse official, "but there is no doubt that it's true. You see, all our government officials and journalists have agreed that the more a nation receives in exchange for its products, the more it is impoverished."

Thus because of the French tariff against low-cost English textiles, the peasant had no alternative but to trade his wine for high-cost Belgian textiles. As a result, his daughter got only three-fourths of her trousseau. And those unsophisticated countrymen are still wondering to this day how it happened that a person is ruined by receiving four yards of cloth instead of three. They still don't understand why a person with nine towels is richer than a person with twelve.

Translated by Dean Russell from Selected Works of Frederic Bastiat, Volume 1. Paris: Guillaumin, 1863. pp. 62-63. And published in The Freeman, June 1958, Volume 8, pp. 20-21.

Clinical Significance of Factors Influencing Excretion of Salt and Water

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Twenty-three years ago (June 28, 1935) I had the pleasure of addressing some of you in Spokane at a meeting of the Pacific Northwest Medical Association on essentially this same subject. At that time we noted together the effects of rest, digitalis, and diuretics on the edema of heart failure. At least veiled reference, I am happy to say, was made to diet with a high potassium sodium ration and the production of a diminished fixed base in the treatment of edema (actually meaning a low sodium diet), but neither in this address nor in the textbooks or current literature of the day was there any direct reference to sodium restriction and its true relation to water balance. Indeed, all patients received a diminished water intake without reference to sodium. I am glad to say that I questioned the validity of restricted water at that time.

Even though the French through chloride studies related edema to salt in 1901, it was not until 1941 that Schroeder clearly stated the importance of salt restriction in the treatment of heart failure. From then on the true relationship of sodium to water has been brought out. Possibly the early confusion by the French concerning chloride was due in large part to difficulties in measurement of sodium, a procedure now quite simple.

Recently remarking to my wife over my own stupidity in 1935 at not seeing the sodium and water relationship more clearly, I was comforted when she quoted the old Chinese proverb, "A journey of a thousand miles begins with a single step." I think you will agree that since the first step by Withering with the discovery of digitalis in 1785 we have come a long way in our journey.

It is the purpose of this lecture to observe some past findings and to state briefly our present state in the control of water balance in heart failure.

As we have progressed to sodium restriction in edema, we also in 1944, finally gave up water restriction at Schemm's timely insistence. Although it is not necessary to force water in heart failure to the extent of Schemm's recommendations, we now know how much to use and when. Occasionally we still restrict water under certain circumstances as noted below.

Present Concept of Congestive Heart Failure

Following the clarification of sodium and water relationship, another series of rapid steps has been taken toward the understanding and, hence, better treatment of heart failure. The situation becomes quite complicated and we now know of a number of factors in heart failure, some of which we can modify. Time permits only a brief outline of these, beautifully summarized recently by Johnson and Conn, and quoted here in part:

> Some of the major systems which appear to operate in the development of congestive heart failure with edema are as follows:
>
> 1. Heart
>
> Decreased effective cardiac output
>
> 2. Vascular system
>
> Increased venous blood volume and pressure
>
> Transudation
>
> Decreased volume pressure or blood

Sommer Memorial Lecture. Presented by the senior author at meeting of the Oregon State Medical Society, Portland, Oregon, September 5, 1958.

flow in all or in a portion of the arterial circulation

Arterial receptor center through which production of ASH (aldosterone-simulating hormone) is reflexly increased via hypothalamic center

3. Adrenal cortex

Increased secretion of aldosterone (independent of pituitary ACTH) in response to ASH

4. Kidney

Decreased renal plasma flow

Early—no detectable decrease of GFR (glomerular filtration rate)

Late—severe decrease of GFR

Increased reabsorptive capacity for sodium before, as well as after, an increase of venous pressure can be demonstrated. Persistence of normal reabsorptive capacity for water. Normal responsiveness to endogenous and exogenous ADH (antidiuretic hormone)

5. Hypothalamic—Posterior Hypophyseal System

Early congestive failure—no abnormality ADH production or degradation

Late—increased ADH release independent of osmoreceptor control.

As Homer Smith points out in a recent review: "It is commonly accepted that water balance is primarily conditioned by the osmotic pressure of body fluids but abundant evidence shows that the antidiuretic system is subject to excitation and inhibition by neural pathways or agents acting independently of osmotic pressure (the only such agent emphasized here is alcohol which affords an illustration of inhibition) and presumably the activity of this system at any moment reflects the algebraic sum of several such excitatory and inhibitory stimuli."

As a working hypothesis he tentatively accepts the location of these "volume or stretch" receptors in the left atrium and intrapericardial pulmonary veins, as described by Henry, Gauer *et al.*, realizing that this does not preclude the later demonstration of volume receptors elsewhere.

My own experience with the antidiuresis of quiet standing has convinced me of the importance of the antidiuretic hormone in primary water retention. I have been able to demonstrate that antidiuresis occurs in hip amputees in the sitting position, thus eliminating pooling of blood in the legs and reducing renal blood flow as the sole mechanism. As a practical feature this reminds us that diuresis is best obtained in the reclining position. I was also able to block the antidiuresis of quiet standing with alcohol, which in turn has a practical application in therapy of primary water retention.

With this complicated addition of volume receptors as well as osmoreceptors to our present understanding of fluid balance, what practical changes in treatment arise? No recent drastic changes have occurred but in little ways coming events cast their shadows before. Let me review briefly my present position in the management of congestive heart failure.

Treatment of Congestive Heart Failure with Edema

Obviously the first move is to favor the restoration of adequate cardiac output by rest and digitalis and, second, to so manipulate the remaining secondary factors as to further aid the return of normal circulatory function.

Our weapons for such a fight are rest, digitalis, sodium restriction, diuretics, chloride and electrolyte replacement when necessary; cardiac surgery in certain patients; alcohol in certain circumstances and, finally, even prednisone rarely as noted below. Some or all of these at any given time may touch on a part or parts of the complicated systems involved in heart failure but restoration of adequate cardiac output is always the ultimate goal.

As already implied, at times we create conditions during the treatment of congestive heart failure which may require additional adjustment. For example, the diuresis following rest and digitalis leads to loss of water and electrolytes in physiologic amounts but no electrolyte complications ordinarily arise from this type of diuresis. On the other hand, diuretics may produce quite definite electrolyte abnormality as may cardiac surgery or prolonged severe heart failure.

Briefly what are some of the effects produced by our main diuretics? A few examples are given:

Mercurial diuretics primarily increase chloride and sodium excretion and the chief action of mercury is said to be diminished tubular reabsorption of the chloride ion. Pitts does not agree and still believes diminished sodium reabsorption results from mercury diuretics. There is some slight increase in potassium loss which may be appreciable with repeated use of this diuretic. Failure of mercury response, or so-called mercury fastness, is often reflected in a low serum chloride although it must be remem-

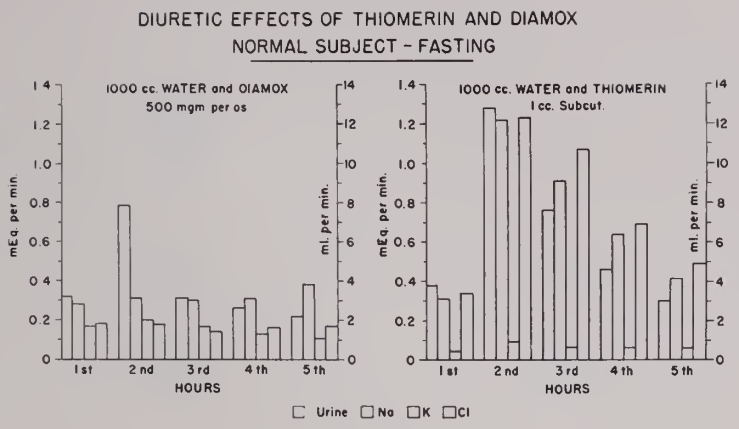


Fig. 1. Differences in electrolyte excretion following administration of two diuretics.

bered that fall in the glomerular filtration rate likewise may present the tubule with less chloride and produce the same effect. Perhaps mercury fastness, so called, is better depicted by a urine chloride of less than 40 mEq./liter than by plasma chloride level, as pointed out by Rubin and Braveman.

Xanthine derivatives as diuretic drugs are numerous and widely used in times past. Aminophylline, as an example, causes an increase in the excretion rate of sodium and chloride without consistent changes in potassium and bicarbonate. The increased glomerular filtration rate following intravenous aminophylline should also be noted as a helpful method of raising chloride load for tubular rejection with concomitant use of mercurial diuretics.

Carbonic anhydrase inhibitors, of which acetazoleamide (Diamox) is a good current example, promote the excretion of sodium and potassium with less chloride excretion effect. Tolerance is developed quickly so that intermittent dosage is desirable. Production of acidosis under close supervision in conjunction with ammonium chloride is mentioned below in the treatment of severe failure with water retention.

Chlorothiazide has appeared recently as an exciting and complicated diuretic of favorable uses with some drawbacks. In vitro it is an inhibitory of carbonic anhydrase, but in man this does not appear to be the mechanism for the production of diuresis which is obscure. Unlike acetazoleamide, tolerance does not occur even with daily administration. It promotes sodium and chloride excretion about equally and has little effect on bicarbonate. It also is said not to greatly increase potassium excretion but this has not been my experience. Time does not permit a discussion of this fascinating effect of chlorothiazide following sympathectomy or of ganglionic blacking drugs on blood pressure. Unfortunately, I have seen several examples of dermatitis following its use, necessitating discontinuance. Aside from these and perhaps other drawbacks it is an excellent oral diuretic, probably the best to date.

Electrolyte Disturbances in Congestive Heart Failure and Treatment of Failure

However, vigorous use of diuretic agents may lead to unbalanced electrolyte losses, posing new problems in replacement. In addition, certain long-standing cases of heart failure may show the dilution syndrome as do some patients following cardiac surgery.

Time does not permit more than a brief outline of some effects of excessive diuretic therapy and possibly dietary restriction. The following states of disturbed electrolyte and water balance may occur:

I. Hyponatremia due to dilution:

a) Acute—resulting from retention of water in greater quantities than sodium under stress or possibly reflex changes or both, as after mitral commissurotomy. This state nearly always corrects itself but alcohol may occasionally hasten the excretion of water over salt.

Total body sodium may be increased in the acute dilutional state in spite of low serum sodium.

b) Chronic dilutional hyponatremia. Patients who have severe, prolonged heart failure may develop hyponatremia with edema though there has been no obvious stress to precipitate this. This indicates a serious disorder. The physiologic mechanisms which allow this to occur are difficult to define, but probably result from a resetting of the osmoreceptors and volume re-

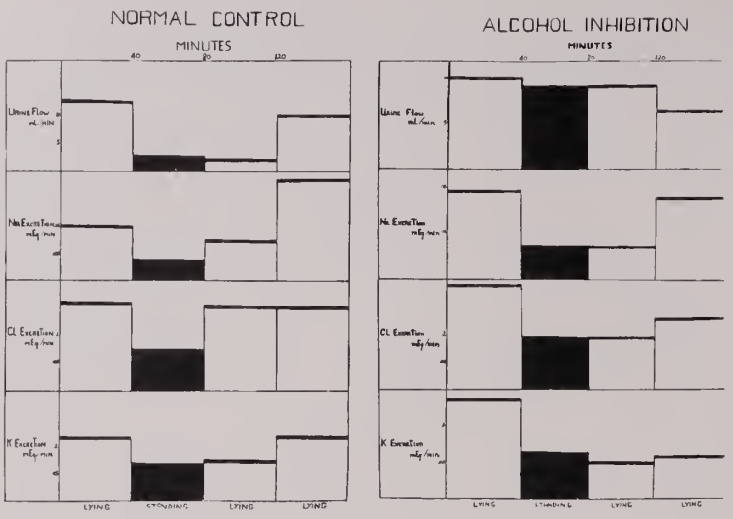


Fig. 2. Illustrates antidiuresis and antisaluresis of quiet standing on the left and alcohol inhibition of the neurohypophysis with no antidiuresis on the right.

ceptors which normally maintain tonicity and volume of the body water compartments. These are set at a lower level so that when the concentration of sodium which reflects tonicity is lowered, ADH is not decreased as it normally is, but continues to exert its effect on the renal tubules and water retention is sustained. In a similar fashion, expansion of the extracellular fluid is not followed by decrease in aldosterone excretion but this hormone is continuously secreted and results in increase of body sodium. There is evidence that aldosterone is secreted in increased quantities in heart failure and even after apparent correction of congestive failure.

There are probably cellular factors also in chronic dilutional hyponatremia of heart failure. These entail:

1. Changes in the cells so that the osmotic activity of cellular solutes is decreased with resulting loss of water from the cells and dilution of the extracellular fluid.
2. Shifts of sodium into the cells and inactivation by combining with proteins.
3. Inability of the cells to maintain a normal sodium-potassium ratio within the cells. This results in increase in intracellular sodium and decrease of intracellular potassium.

Correction of chronic dilutional hyponatremia is difficult at best and sometimes impossible. It is a serious state. Alcohol to promote excretion of water over salt, possibly the use of Mannitol as an osmotic diuretic, the cautious production of acidosis by ammonium chloride and acetazoleamide followed by a mercurial diuretic and water intake restriction, maintainance of potassium balance and very occasionally the use of prednisone for its cellular effect—all are of unpredictable help. Hypertonic salt solution given intravenously in this condition is rarely, if ever, helpful and generally is frowned upon by most good observers.

II. Hyponatremia due to depletion. Though hyponatremia complicating congestive heart failure is usually due to retention of water in greater quantities than sodium, occasionally it results from a loss of sodium in greater quantities than water. This may follow vomiting, diarrhea, loss of sodium through a salt losing kidney, by paracentesis or by the frequent administration of mercurial diuretics. After such losses if water is given without electrolytes, hyponatremia results.

Treatment here is directed toward correction by diet adequate in sodium in the mild cases and hypertonic sodium slowly administered intravenously in the severer situations. Correction of hypokalemia should be accomplished and mercurial diuresis withheld.

Elkington deplores the present confusion in terminology and clearly outlines the chief hyponatremic states ranging from the acute sodium depletion syndrome, through the water intoxication syndrome, the dilution syndrome—a new steady state, to the extreme and often terminal end of the spectrum, the tired cell syndrome in which abnormal metabolic cellular function leads to failure to maintain a low sodium concentration inside the cell and produces a high potassium concentration outside.

Two clinical danger signals are helpful in spotting serious water balance disturbances occurring in the course of congestive heart failure. These are the appearance of azotemia and fail-

ure to respond to mercurial diuretics. Either or both should stimulate detailed investigation.

Serum sodium alone does not always tell the true story. Total circulating sodium (a product of serum sodium concentration and plasma volume) taken together with plasma volume may be a better guide in difficult situations. On the one hand serum sodium can be low with a high plasma volume and high total circulating sodium, as in dilution hyponatremia, however on the other hand the serum sodium again may be low but with a low plasma volume the total circulating sodium is now distinguishing the situation as sodium depletion hyponatremia.

Between these extremes of sodium depletion on the one hand and excess water gain on the other lie lesser disturbances. One or two of these need passing mention.

Hypochloremic alkalosis due to vigorous use of mercurials can be repaired in mild situations with diet, ammonium chloride, and correction of potassium deficit. Hypochloremic alkalosis with its high plasma bicarbonate is occasionally difficult to distinguish from a respiratory acidosis with its high bicarbonate. Even the blood *p*H may fall into so narrow a range as to make the distinction difficult. At times the best choice in such a situation is often a clinical decision (as pointed out by Schwartz and Relman) and the presence of anoxemia and severe pulmonary disease would suggest the possibility of respiratory acidosis.

Summary

In conclusion, we have come a long way in 23 years. Viewing the complicated schema of the pathogenesis of heart failure above, we still turn to the treatment of the heart itself as our first and obligatory consideration. Restoration of adequate cardiac output is the desideratum. Induction of fluid loss effected through the kidney, if not excessive, may favor restoration of normal cellular and extracellular fluid balance and promote cardiac efficiency.

We are learning mechanisms affecting the antidiuretic hormone but we are less well acquainted with aldosterone, its role and possible manipulation.

We dabble with adjustments of electrolyte concentration in body fluids—sometimes wisely with simple chloride and potassium replacement; occasionally unwisely with the use of hypertonic saline.

Although alcohol, osmotic diuretics, and prednisone occasionally help in restoring the patient's ability to get rid of free water, we are a long way from solving the problem of dilutional hyponatremia.

And finally, we at last recognize abnormal fluid balance states of our own making and we are adapting a more realistic attitude to this situation. •

University of Virginia School of Medicine, (Dr. Wood).

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Clinical Pathologic Conference

Tacoma General Hospital, Tacoma, Washington

Prepared Under Direction of Merrill J. Wicks, M.D.

Protocol

Murray Johnson: This 58 year old white man was admitted for removal of a hydrocele which was done with no difficulty. On the first postoperative day he complained of considerable epigastric pain. He had history of gastric ulcer and was given anacids which did not seem to help him. The pain seemed to localize a little more to the upper right quadrant. He became acutely ill and had chills and fever. It was soon obvious that he had a progressively acute abdomen. The surgeon opened him and found an acute gallbladder containing pus. I neglected to say, he developed jaundice during this acute abdominal episode. There was some question at the start as to whether it could have been hepatitis but it was decided that findings indicated obstructive jaundice associated with fever. The condition found was acute fibropurulent cholecystitis.

They took the gallbladder out and removed stones from the common duct. They did have some difficulty because they could not probe through into the duodenum. They put a T tube in and he was sent back to the ward in fairly good condition. This was a long operation, in fact about four hours according to the chart, and you can imagine the difficulties that you would have in a case like this. Postoperatively his temperature and pulse came down and he did pretty well although it was a slow convalescence. He was still jaundiced on the ninth postoperative day. He drained quite well from the T tube and had much drainage from his Penrose drain. He persisted with acholic stools. A cholangiogram was done through the T tube on the 16th postoperative day. The sutures were out, the Penrose drain was out and cholangiogram showed dye entering the duodenum rather promptly. There was a filling defect in the common duct or the hepatic duct which could be due to a stone (Fig. 1).



Fig. 1. Cholangiogram on sixteenth postoperative day showed dye entering the duodenum rather promptly. There was a filling defect in the common duct or the hepatic duct which could be due to a stone.

Roy Patton: The thing that concerned the surgeon was the presence of lucent areas which

were felt might perhaps represent stones in the duct system.

Dr. Johnson: The man was supposed to go home the next day since he was doing well and, as a matter of fact, the attending physician had him discharged on the chart. However, on the day after the cholangiogram the man suddenly went into shock with blood pressure of 75/50. I notice by the notes that he had been up walking around just prior to this.

He was shocky and restless. He did not have any severe pain but, according to the nurses' notes and the doctors' notes, had a tight pain in the lower left chest. I believe he also had some vague substernal discomfort but it was not noted on the chart. This was not a severe pain, however. At this time he developed bilateral friction rubs in the anterior axillary line at the seventh and eighth interspaces, on both sides. He also had crepitant rales in both lungs posteriorly. The diaphragm seemed to move normally with respirations. Heart sounds, however, were inaudible. A specific note was made that dilated neck veins were not present at this time. He had a negative Homan's sign. No other note is made, however, concerning possible thrombophlebitis or thrombosis. There was no leg tenderness or swelling at this time.

From this time on he had progressively downhill course. It was obvious with the rales in the chest after onset of shock that his physicians considered this to be most likely pulmonary embolus. Most of us would agree that this is the likely thing since the signs were localized in the chest. They did their level best to keep his blood pressure up but there was a progressive, downhill course from here on out. The next day he had severe chest pain which was pleuritic in nature. It is noted, by one of the several men who saw him, that the jugular veins were distended and that he was dyspneic. There was no note at any time of cyanosis which ordinarily you would think of in some phase of pulmonary embolism.

The friction rubs remained the same, although there was some little difference noted on the chart by the different men who examined him. They were persistent friction rubs on both right and left with the left being more prominent. It was noted also that the jaundice, which had been clearing, was more severe. Radial pulse was noted to be 100 and regular with a few beats obliterated on inspiration. Incidentally, the nurses noted that even during the convalescent period there was cardiac irregularity at times. Now whether this was true or not we have no way of knowing except that the physicians in examining him did not find anything up to the time of his sudden shock. On the 19th day the pain was in the right lower chest whereas it had been more on the left before. It was noted on several examinations that the abdomen remained soft and that bowel tones were diminished. One thing not noted was that the amount of bile drainage was considerably less and also his urinary output was less during shock. He was treated with heparin and he was digitalized. On the 21st day he was in more critical condition. Thoracentesis was done on the left side which had more dullness and more positive signs than the right. A small amount of fluid was obtained. It was clear and serous. A later report showed that culture was negative. Abdominal paracentesis was done at the same time in the left upper quadrant and it was negative for bile, feces and blood. It can be negative if you happen to get pressure from the viscera against your needle so one tap does not necessarily mean there was nothing in the abdomen. The patient died at 10:10 p.m. on the 21st day. He died suddenly with another attack, going into shock. There are two chest x-rays. One was taken shortly after his original episode (Fig. 2).

Dr. Patton: All the chest films were portable.

Discussion

Dr. Johnson: It is evident that he had some enlargement of his heart. It looks to me as though there is a little fluid at the base. On the next film it is obvious that it it bilateral and it is reported by the radiologist that this possibly would indicate pulmonary edema. Of course in thinking of pulmonary emboli, we all remember the typical wedge shaped shadows. However, that occurs in relatively few cases. Many cases have almost negative x-ray findings after repeated pulmonary emboli, if they are relatively small, so this could certainly be compatible with our original thinking of pulmonary emboli. One other thing as far as medications, he did have antibiotics when he first had his trouble. Chloromycetin was started in the postoperative period. Some Terramycin was given on the 17th day with the onset of his acute chest pain.



Fig. 2. Portable chest x-ray taken soon after the patient's first episode of sudden shock on the seventeenth postoperative day.

There is no evidence of blood loss during any of this and even when he had his acute shock his hemoglobin was up to a good level. He did show a very high total white count, indicating the possibility of pulmonary emboli, myocardial infarction or it could also have indicated some localized peritonitis at the area of operation. Serum transaminase was noted before operation as 79 units. When he had his acute cholecystitis it was 49 and then when he had his severe episode of shock it was 81 units. Of course, serum transaminase is not specific. It is supposed to be elevated in liver, cardiac muscle or somatic muscle damage. It is possible, although the EKG's as reported here are negative on two occasions, that he had emboli coming from the right side of his heart but it is more likely that they would come from the pelvic veins in relation to the original surgery. There is one thing in relation to his last illness that I would like to mention—when he became more jaundiced he had been receiving Levophed. Although there is no evidence here that he had liver damage we have noted liver infarction with the use of Levophed. It is conceivable that he could have had biliary peritonitis and such thing as subphrenic abscess which would give the picture we see here. Ordinarily we would not get the friction rubs and certainly not bilateral friction rubs from subphrenic abscess.

Dr. Patton: First, I would like to ask Dr. Smith, who saw this man several times before he died, if he has anything to add to what Dr. Johnson has said.

Theodore Smith: The friction rubs were very unusual. They were loud enough so you could almost hear them without a stethoscope. They were palpable over a large area of the chest, first on the left and later on the right. They covered all the lower part of the right axillary area. He had Levophed intermittently. He was a very stoic individual and he complained little of pain. Apparently he was ill some days before his contemplated discharge. Large doses of analgesics and some Demorol were given for the chest pain. When I first saw him he had no signs of cardiac failure. He had very marked dilatation of the jugular veins. He had a peculiar pulse which was obliterated by inspiration. Heart tones were barely audible when I first saw him. He had relatively little fever.

Dr. Patton: Yes, I think that it is a point that should be made—that there was no temperature elevation after the gallbladder operation. His white count was high and showed a shift to the left. Does anyone else have questions or comments?

Ralph Huff: What about his respiratory picture? There is no mention as to whether he had respiratory distress.

Dr. Smith: He had very rapid respiration but this was felt to be caused by his severe pain. His color remained good and no cyanosis was noted.

Dr. Huff: What about the sputum? Were there any cultures?

Dr. Smith: Apparently he had no cultures.

Dr. Huff: Had he had an x-ray of the chest before this hospitalization?

Dr. Smith: I do not know of any.

Govnor Teats: Was there any sign here of cor pulmonale in the electrocardiograms?

George M. Whitacre: The first EKG does show tachycardia at the rate of about 115 to 120 and that evidently was before his gallbladder operation. The general contour was relatively normal on the next one which was taken the day he went into shock and again there was some tachycardia at the rate of 100. The T waves are a little bit low all the way across. I would call it abnormal—nonspecific. There are no changes of acute cor pulmonale. Ordinarily with cor pulmonale we have some ST depression in leads 2 and 3 with depression or inversion of T waves over the right precordium. Those changes are not present. There is not too much positional change.

Dr. Patton: Dr. Johnson, what about this man's acute cholecystitis following another surgical procedure?

Dr. Johnson: I think we have to be on the alert for that because it is reported, particularly with upper abdominal procedures, that acute cholecystitis occurs more frequently than it does in people with gallbladder disease. I think anything that upsets the system, such as asymptomatic stone, stone in the common duct or chronic cholecystitis, can result in acute cholecystitis following abdominal surgery.

Dr. Patton: Is this a recognized post-surgical complication?

Dr. Johnson: For spermatocele? It has been recognized that acute cholecysitis can occur following any operation and it may be difficult to recognize. It appears in the same way appendicitis can occur. I do not know of any figures on the incidence.

S. F. Herrmann: Has any thought been given to the possible relationship of the cholangiogram to his subsequent symptoms? He was all right until after the cholangiogram. The next day he went into collapse. It is conceivable that the vena cava might have been thrombosed in the process of performing the cholangiogram.

Dr. Johnson: As I read over the chart it was hard to find any evidence for this. The x-ray shows good drainage of contrast medium into the duodenum.

H. A. Anderson: I have a little trouble because there are no EKG changes indicative of cor pulmonale or pulmonary embolism. The chest x-rays show pulmonary edema and evidence suggestive of left ventricular failure. I would have to make my first impression *myocardial infarction.* I think the facts fit this better than pulmonary emboli. One comment is made that heart tones were inaudible at some examinations.

Dr. Smith: The heart tones were difficult to hear at all times. The respiratory sounds added to the difficulty. The heart sounds were never very strong.

Dr. Teats: Do these two successive transaminases speak a little against myocardial infarction?

Dr. Anderson: The transaminase never did go down to normal and, with this definite increase, infarction should be considered.

Dr. Huff: There is one thing here which suggests a *pericardial effusion* too—two things actually. One is the chest x-ray which suggests pericardial effusion or pleural fluid. The other is the radial pulse which was 100 and which showed obliteration of some beats with inspiration. This is a sign of pericardial effusion. Also it would be unusual for a patient with this much lung involved by infarct not to have hemoptysis.

Dr. Patton: Are there any other things that point to pericardial effusion?

Dr. Huff: The distended neck veins and the EKG. There is decrease in the amplitude of the QRS complex. It is very unusual to hear a friction rub bilaterally but a friction rub, to me, suggests pericarditis and then the disappearance of the friction rub would go with pericardial effusion. The etiology of pericarditis in this particular case is not clear.

Dr. Whitacre: Myocardial infarction?

Dr. Huff: I am thinking of that except you would think that there would be more changes in the electrocardiogram.

Dr. Whitacre: The electrocardiogram was

taken on the day of his collapse and changes might not yet be present. The one other he had on the day of his gallbladder operation or the day before. He had the second one on the day of his collapse and there was no follow-up. There certainly was a marked change in the size of his heart in these two films. How many days intervened between them?

Dr. Patton: Three days.

Dr. Huff: What about this pleural effusion he had too? Perhaps he had generalized involvement of all of his serosal surfaces.

Dr. Patton: Actually of course, this was read by the radiologist as edema and cardiac enlargement. The thoracentesis in the left chest produced only a few cubic centimeters of fluid.

Conclusion

Dr. Patton: At autopsy the man had a *massive pericardial effusion with diffuse purulent pericarditis.* An estimated 800 to 1000 cc. of rather thin but cloudy fluid were present in the pericardial sac. It was what gave the appearance of cardiac enlargement in the chest x-ray. A large subdiaphragmatic abscess was present in the midline. This was filled with creamy purulent material. I do not doubt that the pericarditis was due to extension of the inflammatory process under the diaphragm. The heart as you see it here is not significantly enlarged and there was no evidence of myocardial infarction. There were no pulmonary emboli. There was no pleural effusion. There were no pleural adhesions so these friction rubs were due to pericarditis. Why they were so prominent on the right or why they were heard in the right axilla I can not explain very well. The liver did not show infarction or evidence of damage, but it was congested. There was a large chronic inactive ulcer in the duodenum, about 4 cm. across, lying posteriorly on the pancreas. Biliary tract was intact and no stones were found in it. It was difficult to dissect out completely but it was examined thoroughly.

Dr. Herrmann: Was there leakage of the duodenal suture?

Dr. Patton: No. The upper right quadrant above the liver was all right. There was no evidence of peritonitis here.

Dr. Huff: Why was this patient without fever?

Dr. Patton: That is a good question. It was for this reason that I included in the protocol the antibiotic therapy this patient received. From a clinical standpoint there was no evidence of acute inflammation. There was no indication for massive therapy. Whether it would have done any good is a good question too. I might say that the smears of the material from the pericardial effusion were loaded with micrococci. The sequence of events is: an acute fibropurulent gallbladder was removed and following it a subdiaphragmatic abscess formed. This eventually spread upward into the pericardial sac and caused the tremendous effusion which depressed cardiac function to a point where the patient could not maintain his blood pressure. This was the cause of the distended neck veins, shock and friction rubs and chest pains. Because the pressure in the pericardial sac was not relieved, he died.

Dr. Smith: The patient had a marked paradoxical pulse.

Dr. Patton: What is the mechanism of paradoxical pulse?

Dr. Smith: Two things are involved. One is that in inspiration increased negative pressure in the chest pools blood in the vena cava so that more blood is delivered to the heart. At the same time the lungs expand and so do the chambers of the heart. In normal inspiration this phenomenon is present. With pericardial tamponade there is prevention of this increased filling of the heart from the vena cava so that it cuts down the output of the heart and you get a weaker pulse. In cardiac tamponade, venous pressure is frequently increased. This man had a very large tamponade. We noted the paradoxical pulse but we were looking for a subdiaphragmatic abscess.

Dr. Patton: The abscess in the abdomen was completely above the liver near the midline and there was no inflammation below the liver. •

Fibroma of the Diaphragm

Report of a Case

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Primary tumors of the diaphragm are rare. It is of interest that the first primary diaphragmatic tumor ever reported was a fibroma discovered at autopsy in 1868 by Grancher.[1] Clagett and Johnson,[2] Crimm and Kiechle,[3] and Nicholson and Whitehead[4] have reviewed the literature. The latter two authors prepared a list of primary tumors of the diaphragm (table 1).

Table 1. Primary tumors of the diaphragm.

Benign		Malignant	
Adenoma, adrenal cortical	1	Fibroangio-Endothelioma	1
Anedoma, liver tissue	1	Fibromyosarcoma	1
Angiofibroma	2	Fibrosarcoma	7
Chondroma	1	Hemangio-Endothelioma	1
Fibrolipomyxoma	1	Leiomyosarcoma	1
Fibrolymphangioma	1	Mesothelioma	1
Fibroma	1	Myosarcoma	1
Fibromyoma	2	Myosarcoma, undifferentiated	1
Hemangioma	1	Neurofibrosarcoma	2
Leiomyfibroma	1	Rhabdomyosarcoma	2
Lipoma	7	Sarcoma	1
Lymphangioma	1	Sarcoma, Endothelial	1
Neurofibroma	1	Sarcoma, mixed cell	1
Rhabdomyofibroma	1	Sarcoma, undifferentiated	1
Total	22	Total	22

It will be seen from table 1 that benign and malignant primary diaphragmatic tumors occur with equal frequency, lipomas and fibrosarcomas being the most common.

The following case report is that of a fibroma which arose from the central portion of the left diaphragm. This brings the total of reported cases to 45.

Case Report

A 60 year old white female was seen for the first time Oct. 23, 1956, because of shortness of breath of six years duration, precordial pain with exertion for one

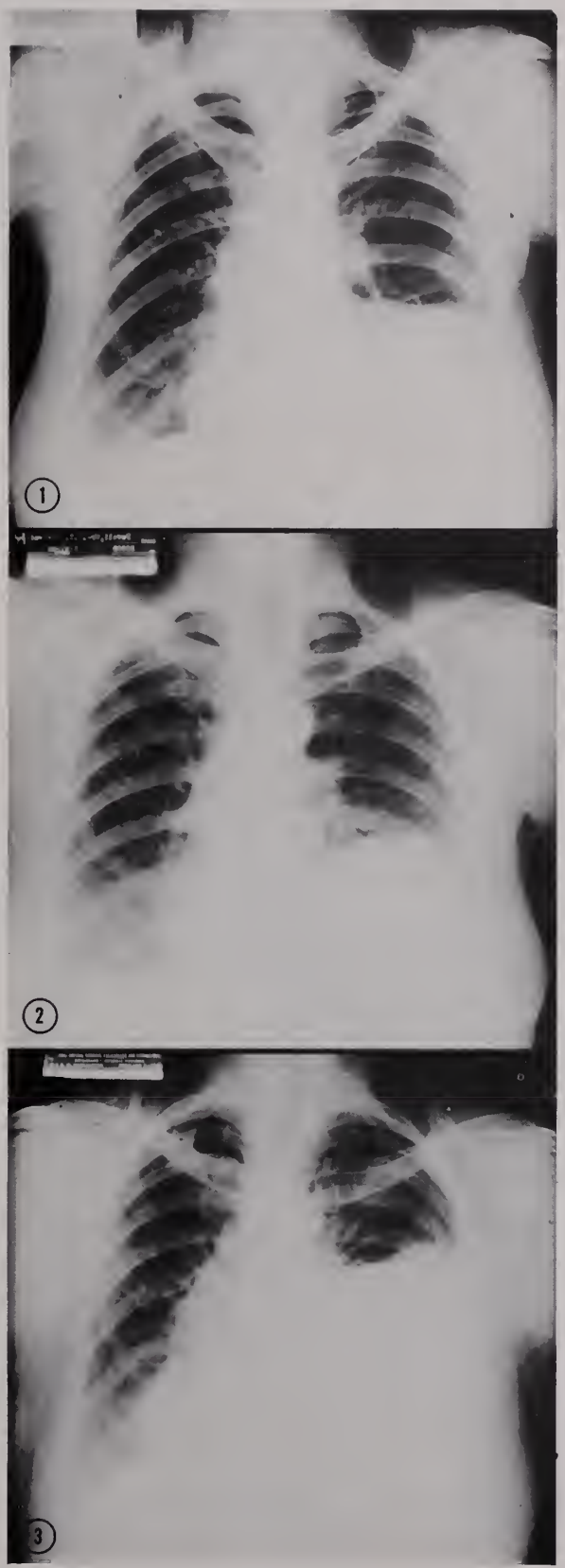


Fig. 1. Chest x-ray taken Nov. 11, 1950. Fig. 2. Chest x-ray May 31, 1952. Fig. 3. Chest x-ray Oct. 23, 1956.

year, and a sense of fullness in the chest for six months. X-ray examination of the chest elsewhere in 1950 had revealed what was interpreted as an elevated left leaf of the diaphragm. Subsequent chest x-rays in 1951, 1952, and 1956 showed progressive increase in the presumed elevation of the left leaf of the diaphragm (Figs. 1, 2 and 3).

Physical examination Oct. 23, 1956, revealed a 60 year old woman who appeared in no distress at rest. Mild exercise provoked moderate dyspnea, however, as well as aching left-sided chest pain which radiated to the neck and left arm. Blood pressure was 120/80. The pulses were of good quality, regular and 80 per minute. Temperature was 98.6 F. Her head and neck were normal. The left side of her chest was flat to percussion and breath sounds were absent below a level corresponding to the fifth rib in the mid-scapular line. The extent of flatness was not appreciably changed by respiration. The right side of the chest was hyper-resonant and breath sounds were vesicular. The heart was markedly shifted to the right. Its sounds were of normal quality. Abdominal examination was normal. Pelvic and rectal examinations were not done. No edema nor color change was present in the extremities. Routine hemogram and urinalysis were normal. The electrocardiographic tracing showed minimal depression of the T waves in leads I, III and AVL, suggesting mild myocardial ischemia.

Chest x-ray Oct. 23, 1956 (Fig. 3) revealed a density in the left chest that extended from the diaphragm up to the sixth rib posteriorly. Fluoroscopically it could be seen that the right side of the diaphragm moved well with respiration, whereas the density in the left chest was immobile. The heart and mediastinum were displaced to the right. Radiographic examination of the barium-filled esophagus and stomach revealed no evidence of indentation or other distortion of the cardia. Diagnostic pneumoperitoneum demonstrated the lower surface of the left diaphragm to be normal in contour and position (Fig. 4).

The above studies suggested the likelihood of an intrathoracic mass or a tumor arising from the thoracic side of the left diaphragm. Left thoracotomy was performed on Dec. 6, 1956. A large fibroma was found to occupy most of the left hemithorax. It was attached by a small pedicle to the central portion of the diaphragm. The tumor was removed without incident. However, on the day following surgery the patient developed left hemiplegia and expired 24 hours later. Autopsy was denied.

Pathology

Gross examination (*Fig.* 5): Large, rounded, solid mass weighs 1,360 Gm. The surface is fairly shiny and of a mottled pink, purple, white and cream color. On one surface it is moderately ragged and is attached to a segment of muscular diaphragm which measures 4 cm. in its greatest dimension. There are numerous fibrous adhesions over the surface of the mass and a few dense, thickened, hyalinized areas. A few small, soft, pink lobulations extend from the surface. On the edge these range up to 2.5 cm. in their greatest dimensions. On sectioning, the entire structure is made up of solid tissue of a mottled pink, cream and white color. No areas of necrosis are encountered. No hemorrhagic zones are found. There are minimal trabeculations but large vascular spaces are encountered. A few areas have assumed a purple coloration, as though infarcted.

Microscopic examination (*Figs.* 6 *and* 7): Multiple sections reveal uniform histologic pattern characterized by somewhat elongated collagen-producing cells. There is some variability in the amount of cellularity from field to field, but the individual cell appears quite uniform with nuclear regularity and no apparent mitotic irregularities. In some areas there is extensive hyalinization.



Fig. 4. X-ray of chest and upper abdomen following diagnostic pneumoperitoneum Nov. 31, 1956.



Fig. 5. A fibroma, weighing 1,360 Gm., was found to occupy most of the left hemithorax of a 60 year old woman.

Vascular channels are quite prominent within the tumor. At one point there is what appears to be a laminated, collagenous, fibrous capsular mass. Some well-differentiated muscle is seen opposing this which may be from the diaphragmatic origin. There is no evidence of malignancy in any of the sections studied.

Diagnosis: Large fibroma, histologically benign.

Discussion

Diaphragmatic tumors may be asymtomatic. Chest pain is the commonest complaint. This pain is most often stabbing or pleuritic in character but may be dull or aching. Respiration, change of position, or straining may alter or aggravate it. A sense of fullness in the lower chest is often noted. In certain instances pain radiates to the neck, shoulder, arm or abdomen. Depending upon the size and nature of the tumor and the resulting embarrassment of the cardio-pulmonary system, fatigue, dyspnea, cough or angina may occur. Protrusion of the upper abdomen is found occasionally.

The tumor may be seen to bulge through the lower ribs. A mass can sometimes be felt through the lower ribs or detected by abdominal examination as it moves with respiration. Dullness, flatness and diminished or absent breath sounds occur on the side of the tumor. Small tumors cause a negligible distortion of diaphragmatic contour. Large ones may even displace the heart and mediastinum to the opposite side. Destruction of ribs has been described. Pleural effusion may occur.

Scott and Morton[5] point out that intrathoracic tumors touching the diaphragm show motion synchronous with the normal respiratory excursion of the diaphragm. If the tumor lies underneath the diaphragm and protrudes through it into the thoracic cavity, a paradoxic movement of the tumor's shadow is noted. In the case herein described, no motion of the diaphrag-



Fig. 6. Low power photomicrograph (80x) of fibroma reveals a uniform histologic pattern characterized by somewhat elongated collagen-producing cells. Fig. 7. High power photomicrograph (350x) shows the individual cells to be quite uniform with nuclear regularity and no apparent mitotic irregularities.

matic tumor was seen, presumably because of pleural adhesions.

Tumors of the left side of the diaphragm are more readily recognized than those of the right. Distortion of the gastric gas shadow in a chest x-ray or the appearance of displacement of the cardia in the radiographic examination of the stomach may arouse suspicion of a diaphragmatic abnormality, as it did in this case. Tumors of the right side of the diaphragm may be confused with malignancy of the liver or other causes of marked hepatomegaly.

Pneumoperitoneum may be exceptionally useful in the recognition of this tumor, especially when it is on the right side. However, pneumothorax, thoracoscopy, bronchography—singly or in combination—may be necessary to define clearly the nature of the process.[6]

Summary

1. A case of primary fibroma of the diaphragm is presented.

2. A review of the literature discloses 44 previously reported primary diaphragmatic tumors. The present case brings the total to 45. Of this total, 23 were benign and 22 malignant. Lipoma is the most common benign diaphragmatic tumor, and fibrosarcoma the most common malignant form.

3. Whenever routine chest x-ray reveals an abnormality of diaphragmatic contour, tumor of the diaphragm should be considered. Radiographic examination of the barium-filled stomach should be done if disease of the left leaf of the diaphragm is suspected. Diagnostic pneumoperitoneum then may be employed to confirm the suspicion of tumor. In unusual cases, pneumothorax, thoracoscopy, and even bronchography may be necessary to make diagnosis more certain. A certain number of diaphragmatic tumors can only be proved by exploratory thoracotomy. •

812 S.W. Washington (5).

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AMA Plans Civil Defense Conference in November

More than 175 physicians and others interested in civil defense will gather November 8-9 in Chicago for the ninth annual County Medical Societies Civil Defense Conference. In an effort to promote test operations dealing with simulated disasters, the program will feature reports on several field tests conducted this year. "Test Exercise Star"—based on a mock earthquake of severe intensity—was conducted by the Alameda-Contra Costa (California) Medical Association in cooperation with local civil and military authorities. "Operation Prep Pitt"—dealing with a theoretical jet airplane crash into the Pitt Fieldhouse—was conducted by the Allegheny County (Pennsylvania) Medical Society in cooperation with local authorities. "Operation AFTA"—based on a simulated airplane crash on the Tulane University campus—was sponsored by the Committee on Medical Education for National Defense (MENS) of the Tulane School of Medicine to provide a realistic situation for the instruction of medical students in the principles of disaster medicine.

As in past years, the group will divide up into workshop sessions to consider various phases of civil defense: organization and training; reception, evacuation and emergency care; hospital disaster planning; supplies, transportation and communication.

The two-day meeting at the Morrison Hotel, Chicago, is being planned by the AMA's Council on National Defense. F. J. L. Blasingame, executive vice president, will welcome the conferees on behalf of the American Medical Association, and Gunnar Gundersen, AMA president, will speak on "The Profession's Responsibilities in Civil Defense." Officials of the newly-created Office of Civil and Defense Mobilization will report on the expanding role of the federal government's defense program and the medical and health aspects of civil defense as they pertain to the new program.

From AMA News Notes, September, 1958

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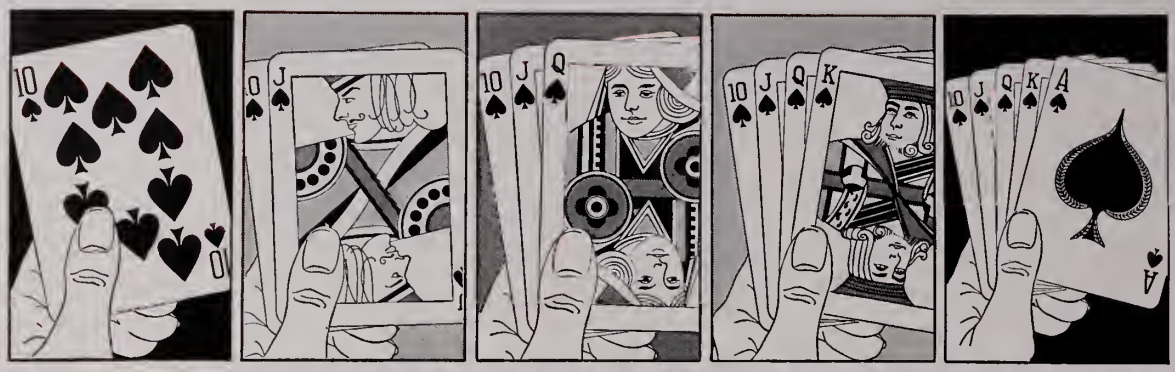
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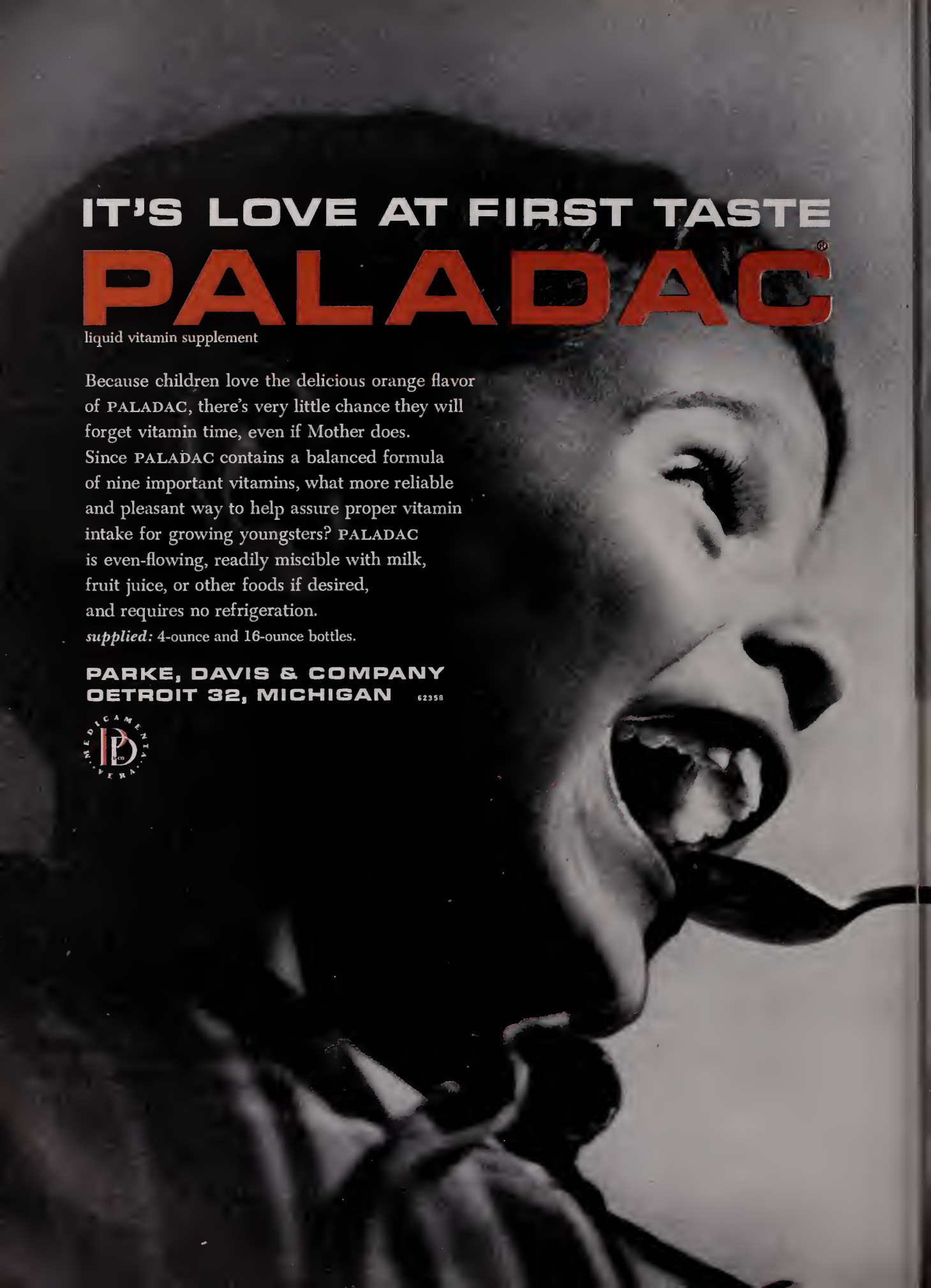
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2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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ANNUAL MEETING
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DeNorval Unthank Named "Doctor of the Year"

DeNorval Unthank, 59-year-old Portland negro physician, was selected "Oregon Doctor of the Year" for 1958, at the 84th Annual Session of the Oregon State Medical Society in recognition of more than 30 years leadership in the field of improving inter-race relations.

Dr. Unthank and his family were guests of honor at the Inaugural Ball and received a plaque from President Vern W. Miller of Salem.

The soft spoken medical graduate of Howard University served as a representative from the United States National Council of the Y.M.C.A. to the World Council in Germany in 1957, and was appointed by the Council to serve on the Commission on Inter-Racial Practices and Principles.

Dr. Unthank, a past-president of the Oregon Chapter of the National Association for the Advancement of Colored People, is vice-president of the Oregon Com-

(Continued on page 1320)

(Continued from page 1319)

mittee for Equal Rights and Chairman of the Portland Commission on Inter-Group Relations.

Dr. Unthank's long list of community activities includes service as a member of the Board of Directors of the Oregon Prison Association, leadership in developing the Urban White House Conference on Children and Youth in 1950, chairman of the Mayor's Committee on Inter-Group Relations, a member of the Governor's Committee on Children and Youth, vice-president of the Family Counseling Service and a member of the Board of Directors of the Urban League.

The 1958 Doctor of the Year was the first negro member of the Portland City Club, is active in the Chamber of Commerce and serves as Chairman of the Board of Directors of the North Branch of the Y.M.C.A.

Dr. Unthank is a charter and life member of the Blessed Martin Day Nursery. He is active in a number of religious organizations and from 1949-51 served as vice-president of the Portland Council of Churches.

A booster of the Republican party, he received a distinct honor in 1944 when the Young Democrats of Oregon selected him as "Negro First Citizen." In 1955 the Billy Webb Lodge No. 1050 sponsored a public testimonial banquet in recognition of his civic service.

Professionally Dr. Unthank is a member of a number of large hospital staffs, the American Medical Association, Oregon State and Multnomah County Medical Societies, American Geriatrics Society, American Trudeau Society, the American Heart Association, Mental Health Association and is a member of the Board of Directors of the Oregon Tuberculosis and Health Association.

Dr. Unthank's father was a cook. He was born in Allentown, Pa., one of eight children. His mother died when he was 9 years old and he was then reared by a physician uncle, Thomas C. Unthank, in Kansas City, Mo. He decided to become a physician when he was a junior in high school, because of his interest in sciences and partly due to the uncle's profession.

He and his wife, Thelma, have three sons and two daughters, DeNorval Jr., 28, a Eugene architect; Thomas, 21; Jim, 20 and Thelma, 18, all college students, and Lesley, 16, a Grant High School student.

The Society established the Doctor of the Year program in 1957 for the purpose of recognizing members of the profession who make outstanding contributions to community life beyond the time consuming practice of medicine. Nominations for the award are received each year from component medical societies throughout the state, and final judging is done by a panel of leading citizens from business, industry, labor, the clergy and the medical profession.

Last year's winner was Archie D. McMurdo of Heppner.

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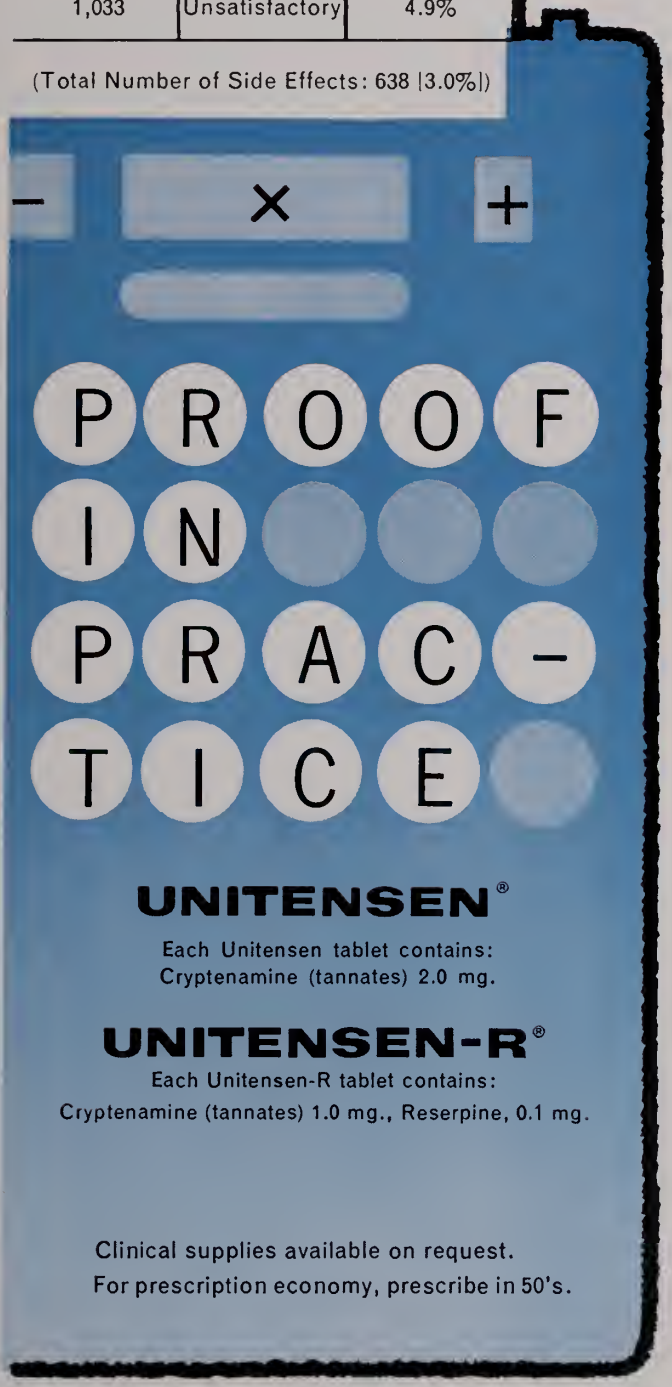
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Structure of State Society Changed Significantly

Oregon State Medical Society was completely reorganized by the House of Delegates at Portland last month. This important action was by far the most significant event of Oregon's eighty-fourth session and will govern the Society's activities for many years to come. Work of the organization will be expedited materially.

Members who do not attend sessions of the House probably do not realize the vast amount of work done by the Society. Oregon has 24 standing committees, 28 special committees and 5 representatives to other bodies. Each has specific duties and specific responsibilities. The aggregate volume of work done and the diversification of problems into which committees delve are remarkable. Past work load and the tendency in Oregon to name new committees rather frequently have made the situation considerably more complex than in the other northwest states. The plan has been under study for several years.

New organization follows recognized business principles. It is axiomatic, in business, that an executive can be most efficient when he has only a limited number of persons reporting to him directly. He cannot properly advise and guide more than five or six individuals. This has been taken into consideration by those who have planned the new structure of Oregon State Medical Society.

Under the new plan the President and his advisors, the Council, will have reports from five commissions. Committees have been grouped so that each commission will direct and report on work of several committees in one of the five broad fields of society activity. This provides not only much more efficient direction but offers better communication within the organization. In the past there has been some confusion when two or more committees have approached the same problem without being aware of the other work being done. The new structure offers a means of preventing such waste of effort and of preventing damage to public relations which has sometimes occurred as result of confusion.

The proposal was not accepted by the House without some debate but carried easily when the vote was called. Only serious criticisms were that interposition of the commissions removed the officers one more step from membership and would interfere with Society work if commissioners did not function adequately. These hazards were admitted but did not prevent acceptance.

Relationships with O.P.S. and Medical School Considered by House at Annual Session

Relationships with Oregon Physicians' Service and the University of Oregon Medical School dominated the business agenda of the House of Delegates at the 84th Annual Session of the Oregon State Medical Society held in Portland, September 3, 4 and 5.

Included among a number of resolutions dealing with O.P.S. were requests that the Society discontinue its sponsorship of the Blue Shield Plan in Oregon, that O.P.S. abandon the full service contract and that the schedule of allowances be revised to provide differential compensation for qualified specialists.

The House turned down these proposals.

However, the large number of resolutions relating to O.P.S. resulted in creation of a Committee on Prepaid Medicine to consider all matters of contention between the membership of the Society and O.P.S. Up for early consideration by the new Committee will be the advisability of continuing the "supporting physician" category.

The House also adopted a resolution submitted by the Reference Committee on New Business which expressed the Society's desire to retain and strengthen its voice in the affairs of O.P.S. The resolution further called upon the Board of Trustees of O.P.S. to present to the Council and, where feasible, to the House of Delegates all changes in by-laws and other changes in policy which might be under consideration by the Board.

A progress report submitted by the Committee on Medical Education indicated that an early meeting will be held with the Committee on Medical Education of the Oregon State Board of Higher Education. The report was adopted.

The action served as a vote of confidence for the work of the Committee in its numerous and lengthy



Presiding Officer At House of Delegates—Blair J. Henningsgaard of Astoria received vote of appreciation from members of the House of Delegates at 84th Annual Session of the Oregon State Medical Society for efficient handling of long and sometimes complicated business sessions. Members of the Society later re-elected Dr. Henningsgaard for second term as Speaker of the House of Delegates.

conferences with representatives of the University of Oregon Medical School in efforts to resolve long standing points of differences between the Society and the School.

Other Actions

Acting on a report of the Committee on Charitable Medical Care, the House recommended that the 1959 State Legislature consider an appropriate increase in the State Welfare medical budget to at least cover out-of-pocket expenses for physicians when treating welfare recipients.

The Delegates turned attention to problems involving "third parties" in medical care with adoption of a recommendation that the Committee on Patient-Physician Relations instigate a study and make recommendations regarding all circumstances under which a "third party" appears to interfere in relations between patients and physicians.

The Society revised its Constitution and By-Laws to provide for establishment of five commissions of three members each. The commissions—Judicial, Education, Public Health, Para-Medical and Public Relations—will supervise the activities of committees and serve as liaison between the committees under their jurisdiction and the Council. The President will appoint the commissioners with approval of the Council.

Other revisions in the Constitution and By-Laws included the establishment of Scientific Sections and approval of a new Section on Ophthalmology and Otolaryngology and a change in the name of the Committee on Cancer Study to the Committee on Cancer.

Educational standards for schools of osteopathy was the subject of a resolution adopted by the House which directs the Society's delegates to the American Medical Association to urge the AMA to cooperate with the osteopathic schools in every way possible to improve their educational standards.

The Delegates also authorized the Council to employ a public relations counsel at a yearly retainer not to exceed $2400 after study and recommendation by the Committee on Public Relations.

Additional matters considered by the House of Delegates and committee activities will be reported in future issues of NORTHWEST MEDICINE.



TRIBUTE TO MR. CLYDE C. FOLEY—Vern Miller, at left, retiring president of Oregon State Medical Society, receives on behalf of the State Society a plaque in tribute to Mr. Clyde C. Foley. Werner A. Zeller of Portland, president of Multnomah County Medical Society makes the presentation in the name of the County group.

Plaque Honoring Mr. Clyde C. Foley To Hang in State Society Offices

The name of the late Mr. Clyde C. Foley, the first full time Executive Secretary for the Oregon State and Multnomah County Medical Societies, has been inscribed on a plaque which will be hung in the State Society headquarters.

Mr. Foley died on Oct. 3, 1957, on the second day of the 83rd Annual Session, after more than 31 years of service to the two Societies.

The plaque was presented by Werner E. Zeller, president, in the name of the Multnomah County Medical Society to State President Vern W. Miller, during ceremonies at the 1958 Inaugural Ball.

The inscription reads as follows:

A tribute to Clyde C. Foley, 1897-1957, our first Executive Secretary, May 3, 1926-October 3, 1957. Presented to the Oregon State Medical Society by the Multnomah County Medical Society, September 4, 1958.



PRESIDENT'S GAVEL—Herman Dickel, at left, receives the symbol of office from out-going President Verne Miller.

Official Attendance Figures Announced

Although no new attendance record was established during the 84th Annual Session of the Oregon State Medical Society, held in Portland Sept. 3-4-5, observers reported the over-all program was one of the finest and most successful in history.

It was noted that scientific lectures, technical and scientific exhibits and meetings of the House of Delegates were well attended throughout the three-day period.

Official attendance figures compiled at the registration desk recorded 710 physicians, 69 medical students, 69 guests and 211 technical exhibitor representatives. Total attendance count was 1,059.

The 1959 Annual Session will be held in Medford on Wednesday, Thursday and Friday, September 23, 24, 25.



OATH OF OFFICE—Incoming President Dickel of Portland receives the oath of office from Blair J. Henningsgaard of Astoria, Speaker of the House of Delegates.

House Approves Full Cooperotion With Centennial Commission

Medical participation in the 1959 Oregon Centennial Program and World Trade Exposition was practically assured at the Annual Session of the Oregon State Medical Society when the House of Delegates unanimously approved a resolution urging full cooperation with the Centennial Commission.

The resolution introduced by the Multnomah Medical Society, and later amended by the Marion-Polk County Medical Society, authorizes the Committee on Public Relations to lend professional assistance to all interested official agencies in assuring that health and medical exhibits at the Exposition will be of the highest caliber in keeping with the standards of the Centennial celebration.

The amendment instructs the Committee on Oregon Medical History to prepare an appropriate exhibit at the Exposition depicting medicine's role in Oregon history and authorizes an expenditure for this purpose.

The Exposition, to be held in Portland for a period of 100 days commencing in June 1959, is expected to attract more than five million persons from throughout the world. A large area has been set aside for exhibits dealing with health and medicine.

Attendance Prizes Awarded

Valuable attendance prizes ranging from fancy fishing equipment to the latest in portable television were awarded to five winners on the last day of the 1958 Annual Session of the Oregon State Medical Society.

The grand prize, a new compact television set, went to J. B. Steward of St. Helens. Other winners were Ivan C. Jackson, Portland, a portable transistor radio; H. Clagett Harding, Portland, transistor pocket radio; Louis F. Michalek, Roseburg, spin reel, and Joe C. Much, Salem, plastic fishing rod.

Physicians received attendance prize cards at the time they registered. Cards were deposited in the drawing box after the physician obtained the signatures of 45 exhibitors.

House Estoblishes New Traditions

House of Delegates of the Oregon State Medical Society established two new traditions at its 84th Annual Meeting.

The Delegates unanimously adopted a resolution introduced by the Multnomah County Medical Society which provides for the reading of the Oath of Hippocrates as an official order of business at the first meeting of each regular and special session of the House, and also approved the reading of the Principles of Medical Ethics as an official order of business at the last meeting of each regular and special session.

The resolution reminded that the Oath of Hippocrates "clearly delineates the principles by which all physicians shall practice their careers in relation to their responsibilities to patients and colleagues." It further declared that, "the American Medical Association in June, 1957, adopted revised principles of medical ethics as standards by which physicians may determine the propriety of their conduct in relationships with patients, with colleagues, with members of allied professions and with the public."



THREE PRESIDENTS AT AUXILIARY MEETING—Among the dignitaries at the 1958 Planning Session for the Woman's Auxiliary to the Oregon State Medical Society were from left: Mrs. Merle Pennington, Sherwood, president of the Oregon Auxiliary; Mrs. E. Arthur Underwood, Vancouver, Washington, president of the American Medical Association Auxiliary, and Mrs. C. L. Lyon, Spokane, incoming president of the Washington State Medical Association Auxiliary. Business, educational and recreational program was held during same time as the State Society Session. This year's program received many words of praise from Auxiliary members throughout the State.

Mrs. Stenberg Awarded Certificate of Merit

Appreciation for outstanding leadership as President of the Woman's Auxiliary to the Oregon State Medical Society in 1957-58, has been expressed to Mrs. Oscar (Betty) Stenberg of Hood River in the form of a Certificate of Merit from the State Society.

State President Vern W. Miller, Salem, presented the Certificate during ceremonies at the 1958 Inaugural Ball. Mrs. Merle Pennington, Sherwood, current President of the Auxiliary, received the award on behalf of Mrs. Stenberg, who was unable to attend.

The Certificate was presented . . . "in recognition of Mrs. Stenberg's outstanding leadership and eminent service to the Society and its Woman's Auxiliary."

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TABLETS *(sugar coated)*

Each Tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
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SYRUP *(lemon-lime flavored)*

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Sommer Memorial Lecturers: Fig. 1. Michael L. Mason of Chicago, professor of surgery, Northwestern University Medical School. Fig 2. J. Edwin Wood, Jr., of Charlottesville, Virginia, professor of medicine, University of Virginia Department of Medicine. Fig. 3. Ralph V. Platou of New Orleans, head of the department of periatrics, Tulane University of Louisiana School of Medicine. *Special Guest Speakers*: Fig. 4. Robert A. Kehoe of Cincinnati, member of the AMA Council on Industrial Health, spoke on Fluoridation. Fig. 5. James Sterner of Rochester, N. Y., a member of the same AMA Council, discussed Radiation Hazards. *Sommer Committee Member*: Fig. 6. Arthur L. Rogers of Portland introduced Dr. Wood.



Earphones Key To This Scientific Exhibit—An outstanding scientific exhibit at the 84th Annual Session of the Oregon State Medical Society, held in Portland, September 3-4-5, was display and report on The Effects of Prophylaxis on Rheumatic Heart Disease entered by the Oregon State Board of Health. Exhibit, prepared by the U.S. Public Health Service, provided earphones which permitted physicians to sit in on actual case histories and hear recorded heart beats of patients. In photo from left are Fred H. Bishop of Longview, Washington; Carl G. Ashley, Director of Maternal and Child Health Section for Board of Health, and Mr. John Wydro with the U.S. Public Health Service in Washington, D.C. Next stop for the exhibit is the Brussels Fair.

Oregon Ophthalmologist Association Holds Annual Session in Portland

Some 20 members and 60 guests from the Northwest, California, Alaska, and Canada attended the annual scientific session of the Oregon Ophthalmology Alumni Association September 5 in the University of Oregon School Auditorium, Portland. Association members are physicians who have taken residencies in ophthalmology at the UOMS Hospitals and Clinics.

Guest speaker was Francis H. Alder, professor of ophthalmology at the University of Pennsylvania Medical School and editor of the *American Medical Association Archives of Ophthalmology*. He spoke on New Aspects in the Management of Strabismus.

Portland Physician Heads National Group

Arthur C. Jones of Portland has been named president of the American Congress of Physical Medicine and Rehabilitation. Dr. Jones was elected at the group's recent annual meeting in Philadelphia to succeed Donald L. Rose of Kansas City, Kan.

Dr. Jones is director of physical medicine and rehabilitation, University of Oregon Medical School; director of physical medicine at Good Samaritan and Holladay Park Hospitals; medical director of the Portland Rehabilitation Center; and consultant in physical medicine and rehabilitation to Veterans Administration Hospitals in the San Francisco area and to the U. S. Army Madigan General Hospital at Ft. Lewis, Wash.

why all the fuss over potassium?



Many physicians will recall when safe but potent organomercurials were first introduced. At the time there was considerable worry about possible potassium loss. Patients were instructed to take foods rich in this mineral, and not infrequently potassium supplements also were advised. After enough experience was gained, it became evident that only the exceptional case could lose enough potassium to be concerned about. And with oral organomercurial diuretics this was practically never a problem.

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Experience in many patients, for many years, demonstrates that potassium loss is never a problem when NEOHYDRIN® is the oral diuretic. And there is no refractoriness to this effective oral organomercurial.

LAKESIDE



PHYSICIANS VISIT TECHNICAL EXHIBITS — Physician attendance at the 64 technical exhibits on display during the 84th Annual Session of the Oregon State Medical Society was considered to be the largest in recent years. In photo above, Miss Barbara Radmore of Eugene checks x-ray equipment with Mr. J. R. Friend of Keleket X-Ray Corporation of Oregon. The 1959 Annual Session will be held in Medford on Wednesday, Thursday and Friday, September 23, 24, and 25.

Guy L. Boyden, Department Head at UOMS, Dies September 9

Guy L. Boyden, 73, head of the department of otolaryngology at the University of Oregon Medical School, died at his home in Portland September 9. In June, Dr. Boyden was guest of honor of the otolaryngological section at the AMA annual meeting in San Francisco. He had been invited to be guest of honor of the Rhinological Society this month and was to have received the award of merit of the American Academy of Ophthalmology and Otolaryngology for his work in the field of education.

Dr. Boyden received his medical degree in 1911 from Northwestern Medical School and took his residency at the Mayo Clinic in Rochester, Minn. He started in private practice with his brother, the late Frank E. Boyden, in Pendleton in 1913. He practiced there until 1921, except for service during World War I.

After specialty training in otolaryngology at Northwestern, Dr. Boyden moved to Portland and became an associate of the late Frank B. Kister. He had been on the staff in otolaryngology at the University of Oregon Medical School since January 1922. In 1945 he was named clinical professor and head of the department, a position he retained until his death.

Offices held by Dr. Boyden in his professional affiliations included: presidency of Oregon Academy of Ophthalmology and Otolaryngology in 1935; presidency of Pacific Coast Opthalmology and Otolaryngology Society in 1946; vice-presidency and western chairmanship of the American Laryngological, Rhinological and Otological Society in 1953-54, and vice-chairmanship of the Section on Otolaryngology of AMA in 1954-55.

Lane County Medical Society

Guest speaker at the September meeting of the Lane County Medical Society was James W. Brooke of Eugene who had been in England for a year. He spoke on Medical Services in the Welfare States.

A motion passed at a recent Society Council meeting requests a $3,000 grant from the American Cancer Society for the purpose of establishing a radioisotope program at Sacred Heart General Hospital in Eugene for the benefit of patients of Lane County.

At the Lane County Medical Society booth at the Fair in Eugene, September 10-14, childhood immunizations, periodic physical examinations, and health information pamphlets were of main interest. The booth was prepared by the Society's Public Relations Committee, assisted by members of the Auxiliary.

Applicants for membership in the County Society are: David K. Hills of Eugene and Albert Brauer of Florence.

Oregon Society of Allergy Elects

New president of the Oregon Society of Allergy is Nicholas P. Sullivan of Eugene. He was elected at the annual meeting in Portland, September 3. Others named to office were Robert L. Cutter, Bend, vice-president and Alvin D. Wert, Portland, secretary-treasurer. Roy R. Matteri, Portland, is retiring president.

The Society has announced a Workshop in Allergy to be held in Portland on Friday, October 24, at the Medical Dental Building Auditorium. Guest speaker will be Lawrence J. Halpin of Cedar Rapids, Iowa.

Eugene Surgical Society

The first meeting of the Eugene Surgical Society for the 1958-59 season was held September 17 in the Sacred Heart Hospital Staff Room.

The program consisted of a case report of Adrenal Insufficiency presented by John Kirk. This increasingly common problem was discussed by Don Brinton and Nicholas Sullivan. A panel disucssion on Postoperative Convalescence Period followed. The panel members—C. D. Thompson, D. B. Slocum, A. P. Martini and G. M. Gordon—covered a variety of surgical procedures, the length of convalescence and problems concerning this period.

Medical Officer Named For Portland Area

Robert L. Zobel has assumed the duties of medical officer in charge of the Portland area office, division of Indian health. Through his appointment by the Public Health Service, Dr. Zobel will direct the medical care and public health services for approximately 31,000 Indians in Oregon, Washington and Idaho. He succeeds Ruth E. Dunham, who left last April for a position in Washington, D.C.

1958 ANNUAL SESSION—*Facing Page*: Fig. 1. The Delegates' Breakfast. Fig. 2. House of delegates in session. Fig. 3. From left: President-Elect Louis Feves of Pendleton, Vice-President Verner V. Lindgren of Portland and President Herman A. Dickel of Portland. Fig. 4. The technical exhibits. Fig. 5. Panel on Anesthesia Problems, from left: T. F. Brinton, Eugene; Theodore B. Barss, Medford; John O. Branford, Portland and Raymond Schneider, Salem. Fig. 6. Scientific sessions were well-attended. Figs. 7 and 8. The Anual Banquet.


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REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and Leukemia. Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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OREGON STATE MEDICAL SOCIETY

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PRESIDENT-ELECT
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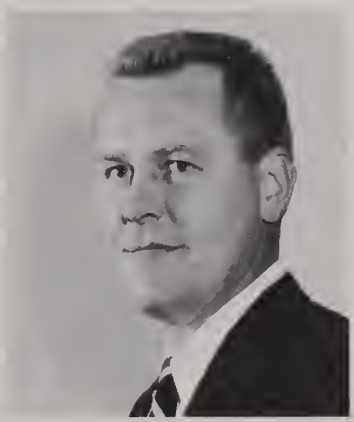
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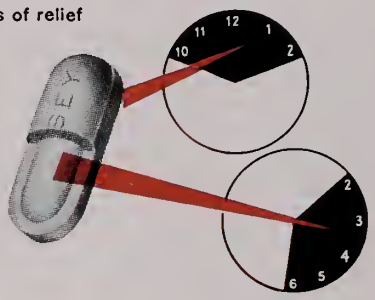
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President's Page



HERMAN A. DICKEL, M.D.

The opportunity that the "President's Page" of the Oregon State Medical Society gives to the Society's President each month is a grateful opportunity on this particular occasion for me to express my thanks and appreciation to the individual members of the organization who make it possible for me to serve each member of our State Society in this capacity. I consider it an honor—one that I accept on a personal basis, but I also wish to express the gratitude that my own particular specialty feels for they, too, recognize it is not ordinary for such to occur.

As I expressed to the members who attended the dinner the evening that the gavel changed from Vern Miller to myself, I could not help but mention that even though the ability to serve you as an executive officer is a very honorable one, there is nonetheless a very serious implication that it is much more than just an honor. It is, if one is realistic, a post that requires a great deal of hard and concerted work. Further, any one who can or does take this post does so with the realization that the job requires, particularly at the present time, these fundamental prerequisites:

a. A willingness to contribute a full capacity of hard, trying and tiring work.
b. A belief in organizational medicine as an absolute need for our profession to maintain the standards, the reputation, and the contributions that it has made for the past 150 years.
c. A realization that we exist in an ever-changing culture, with those changes more apparent and perhaps more intent at the present time, and that we, as physicians, must adapt ourselves as individuals, and our profession as a group, to these changes in our culture without any loss of our fundamental principles.

You have chosen me and the other officers to serve you during the coming year. Whether or not we have the above prerequisites only the following year will tell. I can assure on behalf of all of us that we will serve you with the very best of our ability and capacity, and in so doing will try to continue the excellent and provocative caliber of service that the preceding presidents and officers have contributed to the Oregon State Medical Society.

In serving you we believe that it is important to improve the communication that exists between the Medical Society and the individual doctors. We believe that medicine must be more conversant with the individual physician so that the individual physician can in turn better inform his patients, his public, and his community as to the intent and need for the precepts of organized medicine. As physicians we must contribute something to our community, and only by being better informed can we do this. As your officers, we likewise believe that there must be an improvement in the centralization of our many, varied professional activities. We all have our individual interests and these interests should continue. Many of us have interests in our specialties and subspecialties and these must continue. However, there must be some one organization within the whole broad field of medicine that acts as the central coordinating, centralizing group so that we have a common front in our relationship as doctors to the other professions, to the labor group, to our public, and of course to the political fronts. Our Medical Societies are in a position to do this only if we as physicians will take a forward step in that direction. This is possible only if each of you as individual physicians contribute as much as you possibly can to your own local component societies.

During the past year's visits around the State with Dr. Miller, I have been interested in the greater amount of contribution that physicians in the smaller area make to their component societies. And I say very honestly that I think it is the physicians in the larger metropolitan areas that need to be thoughtful

(Continued on page 1336)

(Continued from page 1335)

when they consider their own specific contribution to their State Medical Society.

You have asked your officers to serve you during the coming year. You have asked us to give of our time and energies—to draw from our families and from our associates extra of their time and energies—to carry on the activities of the Medical Society. This we have willingly accepted as our responsibility, and we enter into it with a wholehearted desire to do the very best we can for you. However, we would do this only if we can expect from you one contribution—that when we call upon you as individuals or as a group to contribute some of your time and energies that you will sincerely cooperate and accept with the very best of your ability.

I would like to say this about the other officers. Any election brings with it certain feelings of intensity, as each group pulls for the individuals that they want to represent them. Not everyone can win, and those who might win today need always the strong minority to prompt progress tomorrow. I sincerely hope that with the passing of the annual convention that some of the feelings of distress pass too and that our ranks will close and our contributions as members will continue on a wholesome front throughout the year.

Your Society is pleased to announce that the president-elect for the coming year is Louis Feves of Pendleton. He joins me in willingly accepting the responsibility for the coming year. Vern Miller continues on our Executive Committee as our past-president and we need him in this continuity for he means a great deal to the Society. Verner Lindgren of Portland joins us as the vice-president and he will bring a great deal of stimulus and provocation to our Executive Committee in its plans for and its activities in carrying out the plans of the coming year. Max Parrott who has contributed so very much to the organization, not only as Secretary-Treasurer but as Chairman of our Annual Sessions, continues and I know that we will look forward to the Session that he puts on in Medford in September 1959.

Further committee announcements will follow next month.

Herman A. Dickel, M. D.

President

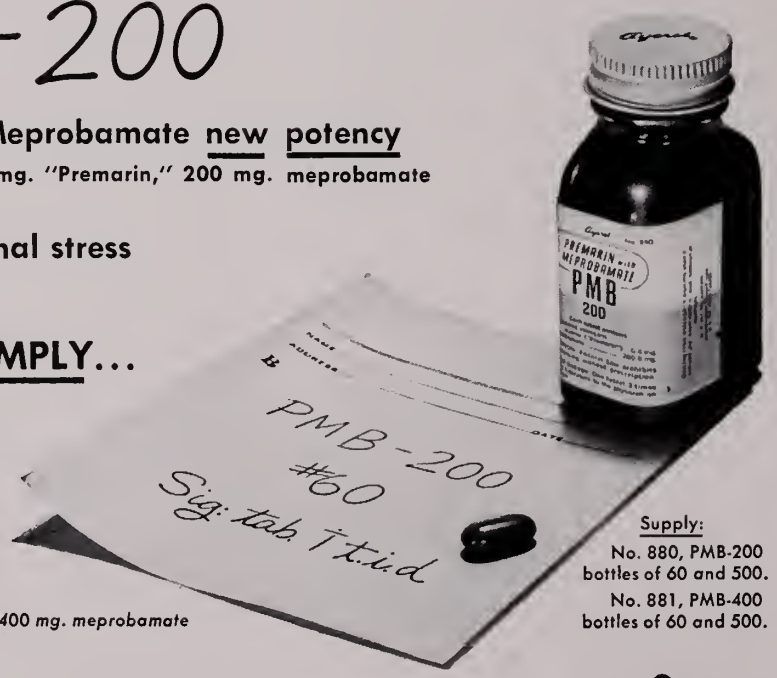
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Washington

WASHINGTON STATE MEDICAL ASSOCIATION
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ANNUAL MEETING
Seattle
September 13-16, 1959

President, Emmett L. Calhoun, M.D., Aberdeen Secretary, Wilbur Watson, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

State Activities of Particular Interest to the Medical Profession

HON. ALBERT D. ROSELLINI
GOVERNOR OF THE STATE OF WASHINGTON

In beginning this talk, which I assure you will cover a variety of subjects, it would be only proper that I commend the medical profession. The medical men in the State of Washington have provided leadership, guidance and cooperation in promoting the cause of health.



Hon. Albert D. Rosellini

The record of your Association and its member societies shows that you have become increasingly aware of the importance of organized medicine working with the people. This has been done not only through official agencies, but also through voluntary health groups and related organizations.

The private practitioner of medicine must not only be concerned with the care of the individual, but must also concern himself with the socio-economic aspects of medicine. This you have done with the development of the medical bureaus, your participation in such organizations as the State Health Council, on advisory committees to the several state agencies with a health or medical aspect, as members of state and local boards of health, by your support of the Basic Science Law in maintaining high standards for practitioners in the healing arts, and the regulation and control of your own members through the establishment of a Medical Disciplinary Board.

It was my pleasure to have worked with you, first as Senator and later as Governor, in creating the Disciplinary Board and establishing it as part of our state government. With you, I am proud that Washington has led the way for other states in this commendable development.

Health Problems Faced By Government

Despite the advances in many areas we are still confronted with increasing problems in conserving the health of our people. We firmly believe in the sytsem of free enterprise and the promotion of the doctor-patient relationship. While this is true, we must recognize that there is a role government is called upon to play in the health fields—and some of the problems we face are increasing ones. I have in mind the problems of environmental sanitation, industrial health, air pollution, radiation hazards, the problems of the mentally ill and the mentally retarded and health services to the indigent and aging.

In facing all such problems we have been able to call upon you in the past, and you have been most helpful. I know that those of us who have the job of administering these programs can continue to count on your sound judgment and assistance in framing the policies under which they are administered.

Legislation Needed

The State Legislature will soon be in session. I am sure I need not remind you of the importance of every member of the medical profession keeping abreast of legislative developments. We need legislation and we need government in the area of health, but as I said before, we do not want it at the expense of sacrificing our basic principles of democratic government. With your help I know we can, together, meet the needs of the people without jeopardy to these principles.

By working together, we in Olympia and you in your profession can do wonderful things. The finest result of this cooperation has been the establishment of the Health Sciences Division at the University of Washington.

The medical profession, of course, took the lead in establishing this new school. For many years leaders in the profession looked forward to the day when Washington would have its own medical school. The support of the profession was important in obtaining passage of two key bills.

The former Senator, Dr. Donald Black, and I, in 1945, introduced a bill to authorize the Health Sciences Division. This established the Schools of Medicine and Den-

(Continued on page 1338)

Address of the Governor, presented at the 69th Annual Convention of Washington State Medical Association, Spokane, Washington, September 17, 1958.

(Continued from page 1337)

tistry at the University and coordinated them with the already established School of Nursing and College of Pharmacy.

Until this bill was passed, Washington State was entirely dependent upon medical schools in other states for its supply of physicians. Since then our state has assumed its fair share of the job of providing new physicians to serve our people.

Teaching Hospital Created

In 1951 we in Olympia got another chance to help the new School of Medicine. In order to complete the facilities necessary for training young doctors and other workers in the health field, a specialized teaching and research hospital on the University campus was urgently needed.

Senator Bob Greive and I co-sponsored a bill which made it possible for the Regents to bond against future income from the Metropolitan Tract to help pay for this hospital. The money thus made available, together with University and federal funds and a supplemental appropriation by the last Legislature, enabled the University to start construction of the long needed hospital. This new hospital is now nearing completion and the first patients from all parts of Washington are expected to enter in May, 1959.

One of the hallmarks of a true profession is that it maintains a continuing and alert interest in the training of young people who will be entering it. In this the medical profession of Washington can be proud of the part it has played. At the present time 580 practicing physicians in this state give their time without pay to serve as instructors of medical students, interns and residents. This is an unselfish contribution made in a true professional spirit.

Agreements Achieved

Major policies and objectives of the medical school have been discussed between appropriate committees of the local medical society and the State Medical Association. Agreement on these policies has been reached through the give and take of mutual discussion on a voluntary basis. While new problems will arise to be faced as the school progresses, the history of discussion in the past gives confidence that these problems can be faced and resolved.

I am informed the Washington State Medical Association, through its Medical School-Teaching and Research Hospital Committee, will have an opportunity to review the budget request recently approved by the Board of Regents for the Medical School, the University Hospital and Health Sciences Division of the University. We will be happy to have you do this as we need your advice.

I can assure you that the budgets of all departments will be gone over with a fine toothed comb. While neither I nor my budget staff are experts on medical matters, we expect to give this problem the benefit of the best judgment of which we are capable. In order to do so, I will appreciate it if you scrutinize the budget carefully and give us the benefit of your recommendations. While we want an adequate budget to do a good job, we will not permit an exaggerated budget.

The opening of the new University Hospital next spring can be considered a real milestone in the progress of the new school. It will bring the care of selected patients under the same roof with laboratory and teaching facilities to the mutual benefit of each. It will help step up the production of nurses, medical technologists and a dozen other allied health professions. It will provide the medical profession of Washington with a referral hospital where special skills and equipment can be available to the unusual patient who cannot be adequately taken care of in his local community.

The Record And The Future

The accomplishments of the school and its future objectives might be summarized thus:

(a) A ninth graduating class went into internship this summer. The new school has now awarded the doctor of medicine degree to 557 young men and women. Graduates of the school are now in practice in 23 of our counties serving the health needs of their patients.

(b) The School has been able to obtain the service of a young and energetic faculty, many of whom have national reputations as teachers and researchers. The school emphasizes research by its faculty and students as the key to further medical progress, and the reduction or prevention of illness and disability among our people.

(c) The School seeks to be of service to the state by providing additional well-trained physicians, by research to further medical knowledge, and by building its program of postgraduate education for the practicing physicians, so that new advances in medicine can be at the command of every doctor.

State Institutions

I would be negligent today if I failed to mention our work and problems in the Department of Institutions.

The most serious problem in our mental health program has been the need to obtain adequate professional medical staff, around which improved and recognized treatment and training programs can be built.

One of the big objectives of my administration has been to obtain reaccreditation for our three mental hospitals. The first step is to recruit a nucleus of physicians and psychiatrists. Once we begin to obtain, and retain, this medical and psychiatric staff and establish the necessary training programs, more professional people will be attracted to work in our mental hospitals and we will improve our recruitment abilities as well as the quality of care and treatment.

Recruitment involves two major problems. One has been the establishment of salary levels which could compete. We had a long way to go. In April of this year competitive salary schedules were established which placed us close to the top in the country.

Since the adoption of the new salary schedules we have recruited 26 physicians and psychiatrists. We are close to obtaining three more excellent psychiatrists and one very able physician. This recruiting drive has been most successful at Northern State Hospital. Northern did not have as far to go as Eastern and Western. Consequently, we feel confident of obtaining full accreditation for Northern State Hospital about the first of the year, both for the three-year residency program and the patient care program.

The License Problem

Now, for the second major problem. As you know, under our present law a doctor must have a Washington

license to practice even in our institutions, although he may not be engaged in private practice. Agreements with other states, which allow granting credits for equivalents in the basic sciences, have not been very helpful. In too many cases there are so many differences in the basic science requirements of the various states involved that a prospective doctor is left in the position of having to bone up on his college textbooks before he can take the Washington examination and be employed in our institutions. For men who are in great demand throughout the country, this immediately eliminates incentive for the prospective doctor to pursue the matter further with our state. We have had to face up to the fact that we have lost a great many prospective candidates for work in our mental hospitals.

I am informed that the *Journal of the American Medical Association* in May, 1958, listed seven states with laws that allow the granting of temporary permits or licenses to physicians to practice in state institutions. These are Arizona, Georgia, Illinois, Massachusetts, New Mexico, New York and Rhode Island. In addition, three states have laws which allow the granting of temporary permits or licenses for emergency localities. These are Kentucky, North Carolina, and South Dakota. New Hampshire has a law which permits its examining board to grant permanent, temporary or restricted licenses according to the best interests of the state.

Arizona has a law whereby physicians who have licenses in other states are able to obtain an Arizona license and be exempt from the basic science examination, so long as the physician remains on the staff of the Arizona State Hospital.

We are perhaps not ready to recommend a specific proposal. Nevertheless, in view of the serious problem we have in this state with our present legislation, perhaps your Association and we in Olympia should consider legislation similar to the Arizona law. If a doctor has received his training from a recognized and accredited medical school, and is duly licensed by another state, under this solution he would be able to come to this state and work in our state hospitals and other institutions. If he should desire to go into private practice, he would first have to take and pass the Washington requirements for a license. The Department of Licenses has discussed these ideas with the legislative committee and staff of the State Medical Association. A fuller understanding of the problem has resulted. Various individuals of the State Association also are aware of the problem and have considered possible solutions. Again we want your advice.

Rehabilitation of the Mentally Ill

It is most important to facilitate progress in our state mental hospitals, as well as other institutions, and we are, therefore, asking the State Medical Association to consider solutions. The problem is becoming more serious. We must, of course, adhere to the concept of treating the mentally ill so that they can return to their families and be useful citizens, rather than to spend great sums of money for additional buildings to merely warehouse the mentally sick.

Labor and Industries

I would also like to review briefly some aspects of the medical program in the department of Labor and In-

(Continued on page 1340)

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(Continued from page 1339)

dustries. Rules and regulations for a new fee schedule became effective April 15, 1958. The schedule was approved by the Board of Trustees and by the Executive Committee of the Washington State Medical Association. It was the result of deliberations by the Industrial Insurance Committee of the Association and the Department.

Since this is the first revision since 1953, the fee schedule shows a considerable over-all increase. The increase will be spread to practitioners throughout the state. Calls and office treatments represent a considerable portion of the increase.

The plan is, after a year or so, to take another look at the fee schedule and to review it more often in the future than every five years, which is too long a period. There should not be another lapse of five years.

The rules and regulations, likewise, will be reviewed with the aim of simplifying forms in order to decrease paper work.

In the past few weeks we have added more help and have speeded the processing and payment of claims. We expect to bring this process to a day to day basis, which will aid tremendously in function and in good will.

Traffic Safety

In the way of a general observation, may I say that we are coming closer to the day when we here in Washington will have to face another problem. I simply want to pose this problem now without recommending a solution so that many of you who have not come up against it can begin to consider what we should do.

I realize that with many physicians this is an explosive subject. But the situation is simply this. The men who are engaged in traffic safety, and more specifically in driver licensing, have no way of becoming aware of physical and mental infirmities which are decidedly hazardous to driving.

The day is not too distant in this state when we will see what has occurred in California—bumper to bumper driving on super highways at high rates of speed.

Such a situation is no place for an epileptic, a diabetic with insulin reaction, people with heart disease, mentally unbalanced persons and similar drivers. For a long time the State has attempted to re-examine the obviously handicapped, but we have no way of detecting these other individuals whom I mentioned. Our knowledge always follows seizures which occur and cause accidents. We are always one accident late.

A number of states now have laws which require doctors to report mental and physical infirmities. Oregon and California are two.

The Washington State Patrol has, on several occasions in the past, been unable to obtain this information. Here and there a doctor has objected because he wanted to keep the doctor-patient relationship confidential. Others felt they were legally bound to withhold the information. Some doctors have been reluctant to "turn in" a patient. A great many more resent the time they have to spend filling out government forms and "policing" an activity of government.

I think the result we seek is plain and simple—to prevent people from killing and injuring themselves and others. I do not doubt that many drivers with proper medication will be able to continue to drive.

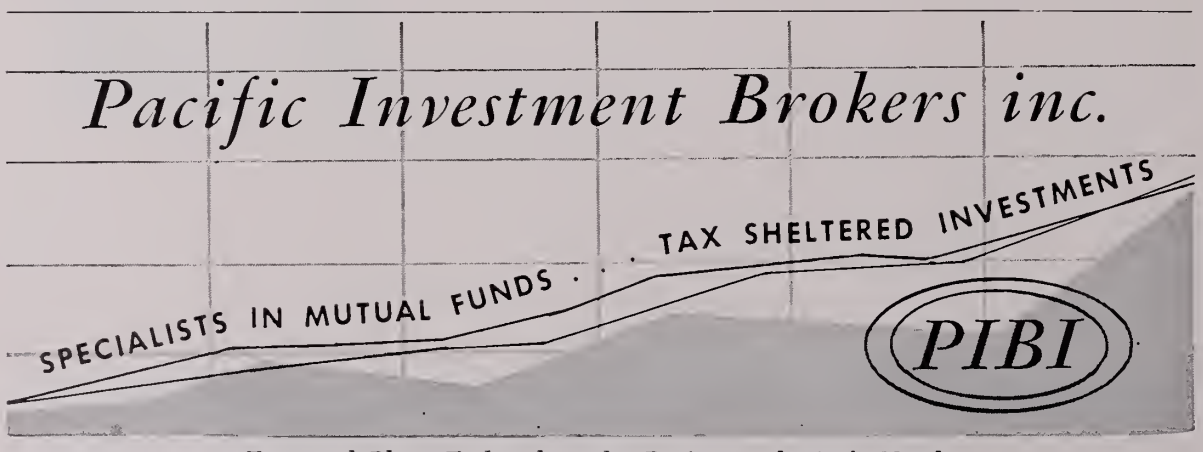
The federal government, through its Department of Health, Education and Welfare, has of late shown interest in this problem. I think it is realistic to say that this federal interest will increase.

Perhaps we need legislation which would require reporting all cases of physical or mental infirmities which may cause temporary or prolonged lapse of consciousness.

I do urge the Washington State Medical Association to consider this problem and I leave its solution to your best judgment.

It is not too often that I get the opportunity to go over aspects of our medical progress and problems. I enjoyed the opportunity and it has been a great pleasure to take part in your meeting.

Thank you for the opportunity. May I offer my congratulations for what I understand has been a very successful convention. •



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GUNNAR GUNDERSEN, M.D.
PRESIDENT, AMERICAN MEDICAL ASSOCIATION

From San Francisco to Washington to Chicago to Copenhagen to Los Angeles to Chicago to Spokane—this has been my itinerary already since my inauguration as AMA President. Already I am beginning to think my fellow townsmen in La Crosse, Wisconsin, are saying: "There goes medicine's John Foster Dulles!"



Gunnar Gundersen, M.D.

Nevertheless, I am delighted to be in the state of Washington, attending your association's 69th annual meeting this week. My visit here is the first to any state medical association in my new position as your AMA President.

Although meetings and speaking engagements have kept me away from home and the Chicago headquarters office, I have kept abreast of what's happening in our American Medical Association. I can assure you that a whole host of new projects are being planned or launched by your officers and staff in Chicago.

New AMA Projects

For example, on Monday of next week every AMA member will receive the first copy of our Association's new fortnightly publication, *The AMA News*. As you know, this newspaper is being published to keep all physicians abreast of developments in the socio-economic side of medicine.

Here is a sample copy printed last month. As you can see, it is compact and attractive. Having read the content, I can assure you that it is interesting and informative as well.

I also can report to you that work has begun on the air-conditioning and remodeling of the headquarters office. The purpose of the two projects, of course, is to step up efficiency and to make more productive use of the entire building.

According to Mr. Russell Clark, our business manager, the remodeled building will have a market value that will substantially exceed AMA's investment in it.

Simultaneously with the remodeling, Dr. Blasingame, our executive vice-president, has reorganized the AMA's administrative staff with the hope of creating a streamlined, effective organization. New lines of authority and responsibility have been established, and I believe that every member of the AMA will benefit directly or indirectly from Dr. Blasingame's administrative reorganization.

I could talk for at least another hour on other AMA plans and projects such as our current food faddism campaign, a new scientific publication called *Medicorama*, and our recent planning session on better medical care for the aged. However, I am sure you will have the opportunity to read about these plans and projects in the *Journal of the AMA* and in the *AMA News*.

Free Choice of Physician

So this morning let us spend a few minutes considering a most important issue—the right of the patient to patronize the doctor of his own choosing. Along with this, let us take a look at the quality of medical care received under free choice, the physician-third party relationship and the desirability of proper surveillance of medical practitioners by their confreres.

About a year ago an editorial appeared in the *Wisconsin Medical Journal* entitled the Third Man Theme. The Journal editorial quoted this paragraph from a labor union article:

> The organizational and collective bargaining process must be extended into a new dimension through negotiations, agreements and arrangements with *third parties—the providers of medical services and facilities*. Only in this way can the job of translating health and welfare funds into better medical care be effectively accomplished.

According to this article it is the *physician* who is the third party. Instead of the traditional patient-physician relationship, *we* are considered an incidental party to a relationship between health plans and patients.

More recently, another labor health leader declared that it is "the right of all labor health services to control their own medical care programs." This may sound logical on the surface, but in order to insure good medical care, patients and physicians alike must remain free individuals. How then can one group claim control over the other two?

We also have recently heard a labor health plan administrator contend that the principle of the patient to choose his own physician under labor health plan programs *has failed*.

Long before labor health plans, the fundamental principle of free choice operated successfully, protecting the rights, privileges, responsibilities and well-being of patients and doctors alike. Are we to believe that after only a few years of trial by a labor health group that this basic right of patients has failed?

Well, these are just a few examples from a wide variety of statements aimed at placing certain third parties *between, against* or *above* the patient and physician, and designed to limit the patient's selection of his own physician.

Individualism vs. Mass Man

A few decades ago I do not suppose many persons would have questioned the freedom of the patient to patronize the physician of his choosing, nor would they have sought to include an outsider in the close relationship of patient-physician—much less eliminate the physician almost entirely and substitute a health plan as the benefactor in his place.

But in recent years the ideal of individualism has lost

(Continued on page 1342)

Read at Washington State Medical Association, 69th Annual Session, Spokane, Washington, Sept. 16, 1958.

(Continued from page 1341)

a good deal of ground to the dogma of mass man. Consequently, the emphasis is no longer on the value of the individual and on the protection and guarantee of his rights; instead, Americans are told that it is the mass which counts, that the *plan* comes before the individual, and that personal selection and judgment are of a bygone era.

I completely disagree with this kind of thinking. Man as an individual is important; he does matter. And it is not too late to begin vindicating the worth of the individual, or to start strengthening the idea of his indispensability.

I believe that moral responsibility and personal character can only be the best when the individual himself has the opportunity to choose, and then proceeds to select and judge for himself. Any compulsion by an outsider—no matter to what degree—weakens the individual's freedom to satisfy his needs and to seek the best solution to them.

In the satisfaction of a person's health and medical care needs the individual must be free in the selection of the physician he wishes to patronize. To limit the individual's choice of physician is to place a lid on personal freedom.

As you can see, I wholeheartedly endorse the fundamental democratic principle of the right of the patient to choose his own physician. For patients and physicians it has been the foundation for the establishment of a close relationship; it has been a safeguard of rights and privileges on both sides, and it has been a guarantee of responsible action by both doctor and patient.

In obtaining the basic needs of life—food, shelter and clothing—Americans have the freedom to choose. Today most persons would include medical care in the list of essentials of life. I personally can think of no sound reason why the individual should not have free choice in the area of medical care.

Choice Is Essential

Recently I read a copy of a letter written by Mr. Bob Sarnoff of NBC to TV-radio editors in which he told of a complaint his network had received. It read:

> In the name of God whose idea is it to cut in on "Dragnet" with a United Nations session? Of all the ridiculous things, that boob wins the extra-large portion of fried cockroaches.

Another letter writer complained:

> I do like to make my own choice of what I watch on TV. This is a free country and I do not like to have things forced upon me.

The letter writers—both women—were griping about the long periods of coverage of the United Nations and Middle Eastern crisis during the summer. For these two TV viewers—and thousands of others—there was no choice of programs for many hours of the day.

In his open letter to the editors, Mr. Sarnoff suggested a plan to provide full coverage of important events plus a *choice* of other programs for viewers with other tastes.

Perhaps the analogy is not as good as it could be, but I think you see my point. Choice is essential. In medicine no physician—perhaps no handpicked list of physicians—can please all patients. This is exactly why I believe the patient should have the reasonable right to select his own physician from among all physicians who are qualified and willing to render the type of medical care indicated.

You realize as I do that among doctors there are degrees of experience, training, skill, ability and art. Patients on the other hand vary in their demands for physicians and medical care. When the patient chooses the medical talent to suit his demand, we have free choice in action.

I admit that the ideal of free choice does not always work satisfactorily, either because of inadequate care or because of unethical practices by a physician. But because there is some trouble a small percentage of the time is not a good reason to abandon the basic right of patients to patronize the doctor of their choice.

Self-Policing by Profession

When and where there are instances of unethical and dishonest actions by doctors the medical profession is willing and able to discipline its members. And I am convinced that our profession can, and will, deal firmly and fairly with the small percentage of doctors who do not conform with accepted medical practices.

Before outsiders suggest that medicine is unwilling and unable to clean its own house, I would ask them to give us the chance to prove our integrity in this matter. You are certainly proving it here in Washington. You and I know that the privilege of self policing cannot be taken lightly. The obligations and the responsibilities are heavy, but our profession is desirous of doing the best policing job with justice for the patient, physician and the third party administering the prepayment program.

Let me remind you that the third party most outspoken against the free choice principle has had most of its troubles—by its own admission—from only about 3 per cent of all participating physicians. I do not condone poor practices by any physician—if they can be substantiated—for I believe that even a single bad apple must be removed from the barrel. However, in this case I think the profession has every right to be proud of the good practices of the more than 97 per cent participating in the health plan.

Integrity of Profession Recognized

I might also point out that the relationship between our profession and others who pay medical benefits for patients has been excellent. Allow me to cite the experience of the Metropolitan Life Insurance Co. in its comprehensive medical-surgical benefits contract with General Electric. Because the provisions of this contract are so liberal and comprehensive, one might have expected a certain amount of exploitation by doctors. It did not occur. During the first year of operation (1955-56) Metropolitan did not have a single case of abuse by doctors.

Since the G.E. contract was set up, more than 500 similar contracts have been negotiated. Here then is proof that commercial insurance companies recognize the integrity of our profession.

I think it is also proof that medicine is ready and willing to practice with third parties the same as it does

(Continued on page 1344)

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— *Richard T. Smith*
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— *William C. Marsh*
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— *Richard T. Smith*
NEW YORK MEDICINE

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(Continued from page 1342)

without them. However, when certain third parties insist upon drastic changes that are detrimental to the patient, to the physician, to good medical care and to the third party itself, then we in medicine must object strongly—and with one voice.

Physicians Must Uphold Basic Rights

In the past, American medicine has opposed certain forms of health insurance and third parties when, after full study, it has been determined that the methods of operations of these plans and groups were, or might become, a deterrent to the provision of the best medical care to the beneficiaries of the plan. And I say to you that I hope we continue to oppose any and all efforts of third parties to *lower* the quality of medical care, or to *limit* the rights and privileges of those involved in providing and paying for medical care.

Perhaps many of you have read a book called The Ethical Basis of Medical Practice by Willard L. Sperry, dean of the Harvard Divinity School. As I reread the book enroute to Europe last month, I came across this paragraph:

> Once a doctor subordinates the claims of an individual patient under his care to the abstract claims of society in general, or to the hypothetical claims of some possible alternate patient, he has SOLD THE PASS. As the cricket players say in England, he has LET THE SIDE DOWN. What is at stake is both his own attitude toward his profession, and even more, perhaps, the confidence of the public in the profession. If, on the basis of a profession differently construed, the report gets abroad that doctors no longer have any sense of moral duty to the individual patient, the whole attitude of society toward the profession will be radically altered, and from my standpoint altered for the worse. The layman still believes that his doctor will stand by him to the end. Once let that faith be shaken, and the layman will approach the profession thereafter with his own skeptical reservations.

Let no man or woman here *sell the pass!* Let no one here *let the side down!*

The right of the patient to select the physician of his own choosing is fundamental to medicine and to democracy.

The judging of the professional qualifications of doctors is the right and responsibility of those of us who actively and properly practice medicine.

And the policing of our profession is the right and responsibility of medical practitioners who recognize the need for strict, intelligent, impartial action against the wayward.

There may be problems that arise from, or around, these rights and responsibilities of patients, physicians and the profession. But they can be solved without abandoning any of the basic rights. Indeed, I believe that such problems are trifling compared with the dangers and the exploitations that would occur without these rights.

Again I urge you: DO NOT SELL THE PASS! DO NOT LET THE SIDE DOWN! If these rights are lost by default or watered down by compromise, I hate to think of what rights, privileges and freedoms will go next. •



From left: Emmet L. Calhoun, Aberdeen, president of Washington State Medical Association, 1958-59; F. A. Tucker, Seattle, president-elect; and R. McC. O'Brien of Spokane, re-elected for a two-year term as Trustee from the Eastern District.

Richard Kegel Accepts Post in Iran

Richard Kegel of Aberdeen has accepted the post of visiting radiologist to the Shiraz Medical Center, Shiraz, Iran, for a period of two years. Dr. Kegel has been in the Near East before as head of the department of radiology and associate professor at the American University of Beirut, Lebanon. He will return to his practice in Aberdeen.

Attorneys Attend Lecture Series On Aspects of Medicine in Law

James C. Hampton, instructor in anatomy at the University of Washington School of Medicine, presented a series of eight lectures on medical facts and terminology to Eastern Washington lawyers during August. The sessions were held at the Yakima Valley Junior College.

The lecture series were arranged by the committee for continuing legal education of the Washington State Bar Association to better acquaint attorneys with medical terminology, theories and techniques often mentioned during personal injury cases.

High interest was indicated by the excellent attendance. Registration during the series showed that lawyers from nearly every Yakima Valley community and such distant towns as Colfax, Ritzville and Moses Lake were present at the lectures.

Dr. Hampton illustrated his talks with motion and slide pictures, a skeleton and a medical text.

A similar series of lectures had been conducted by Dr. Hampton in Seattle for Western Washington lawyers, earlier in the summer.

ANNUAL MEETING AT SPOKANE—*Facing Page:* Fig. 1. Hon. Albert D. Rosellini, governor of the state of Washington, spoke at the Public Relations Luncheon on state activities of particular interest to the medical profession. Fig. 2. Gunnar Gundersen, president of AMA, discussed relationships with third parties in his address before the General Assembly. Fig. 3. George F. Lull, assistant to the President of AMA, discussed the New Look of the AMA Public Relations Department at the Public Relations Luncheon. Fig. 4. Milo T. Harris, president of WSMA, presided at the Annual Banquet. Figs. 5 and 6. House of Delegates in session. Fig. 7. Reference Committee on Reports of Standing Committees. Fig. 8. Reference Committee on Resolutions. Fig. 9. Reference Committee on Reports of Special Committees. Fig. 10. Some 50 pieces of art work by Washington physicians were displayed in the Physicians' Art Exhibit, chairmaned by Edmund Smith of Seattle.


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GOLFER'S STAG BANQUET—Fig. 1. From left, Dan Houston of Seattle, "daddy" of the Annual Tournament of Washington State Medical Golf Association, and R. McC. O'Brien of Spokane, chairman of the 36th Annual Tournament and five-time winner of the tourney. Dr. O'Brien's low gross score of 76 gave him State honors unprecedented in Association golf history. Fig. 2. Climax of the tournament was the banquet held at the Spokane Country Club. Figs. 3 and 4. Trophies and prizes were awarded during the banquet.



CONVENTION DELEGATE—Marion Kalez, Spokane surgeon, and Mrs. Kalez sailed from New York September 4 for Europe. Dr. Kalez attended the International Congress of Aviation Medicine in Brussels, Belgium, as a delegate to the medical meeting.

John R. Hogness of Seattle Named Medical Director of University Hospital

Appointment of John R. Hogness of Seattle as medical director of the University Hospital has been approved by the Board of Regents of the University of Washington.

In his new position Dr. Hogness will supervise teaching activities related to patient care in the hospital and will coordinate referral of patients by physicians in all parts of the state. He will also continue teaching and research activities in the Department of Medicine.

Dr. Hogness, who has been with the University's School of Medicine on a half-time basis in recent years, has begun work as medical director on that basis. He will assume full-time duties when the hospital opens next May.

Obituaries

Dr. Raymond E. Seth, 54, of Seattle died August 24 from an apparently self-inflicted bullet wound. Dr. Seth received his medical degree in 1929 from the University of Minnesota Medical School and served his internship at Swedish Hospital in Seattle. He was a public health officer for the Immigration Service for several years. During World War II he served four years in the Army Medical Corps. Dr. Seth had a private general practice in Seattle until 1953, when he established the Medical Safety Examination Center in conjunction with the Driver Safety Center.



GOLF TOURNAMENT WINNER—Louis J. Sarro, at left, receives his award for low net in the Medical-Dental Building golf tournament from Robert H. Barnes, who served as master of ceremonies. The annual contest, made up of physicians and dentists located in the Seattle building, was held August 29 at the Sand Point Golf Club in Seattle.

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Oath Of Office—Homer Humiston of Tacoma, at right, speaker of the house of delegates, administers the oath of office to incoming President Emmett Calhoun of Aberdeen.

Locations

Charles South, Jr., has joined the office of Herbert Johnson and Floyd Levin in Everett. Dr. South reeeived his medical degree in 1953 from the University of Oregon Medical Sehool. He served his internship at Providence Hospital, Portland, and spent four years in specialty training in surgery at Veterans Administration Hospital in Portland.

Eugene C. Bond has opened offices in Everett for the practice of medicine and surgery. Dr. Bond was graduated from the University of Oklahoma School of Medicine in 1948 and took his internship at St. Anthony Hospital, Oklahoma City. From 1949 to 1953 he practiced in Fairfax, Okla. For the next two years, Dr. Bond served as flight surgeon in the Air Force. Following his discharge from service, he returned to St. Anthony Hospital where he was a resident in surgery for three years prior to moving to Everett.

Don Schwisow has become associated with H. W. Holderby and Robert Becker in the Goldendale Medical Clinic in Goldendale. He is a general practitioner. Dr. Schwisow received his medieal education at the College of Medical Evangelists, Loma Linda, Cal., from which he was graduated in 1952. He took his internship at the Portland Sanitarium and then practiced at Condon, Ore., prior to his recently terminated army duty.

Richard Elston has joined the staff of Tri-County Hospital in Deer Park. Dr. Elston is a 1950 graduate of the University of Nebraska College of Medicine. Following his internship in Minneapolis, he spent three years in the Navy. After his discharge from service, Dr. Elston served a surgical residency in a Veterans Hospital and then had a private practice for one year before moving to Deer Park.

John B. Murphy has opened offices in Colfax for the practice of general medicine and surgery. Dr. Murphy received his medical degree in 1954 from the University of Ottawa Faculty of Medicine. He recently completed a year's residency at Sacred Heart Hospital in Spokane and had been in general practice in Carleton Place, Ontario. Dr. Murphy will practice also part-time in Washtucna.

Robert H. Leahy has opened offices in Everett for the practiee of cardiology, internal medicine and diagnosis. His wife, Mary Leahy, will begin her practice in January. Dr. Robert Leahy was graduated from the University of Roehester School of Medicine and Dentistry in 1954. He served his internship at Strong Memorial Hospital of the University Medical Center, Rochester, N. Y. and then took residency training in internal medicine at the University of Rochester Medical Center and was senior assistant resident at Barnes Hospital of Washington University, St. Louis. He was also a United States Publie Health fellow in cardiology at Rochester Medical Center Cardiac and Pulmonary Clinic and Laboratory. Before moving to Everett, Dr. Leahy was attending physician at the Cardiac Clinie, University of Washington School of Medicine.



Fifty-Year Club—Five new members received their 50-Year Club pins at the annual convention Family Dinner, Sunday night, September 14. From left: seated are F. L. Shepard, Winslow; Mary MacMillan Rodney, Spokane; and C. W. Knudson, Seattle. Standing are William C. Speidel, Seattle, and Thomas C. Paxton, Seattle.

Date of Strauss Lecture at U. W. Changed to Wednesday, November 5

Due to conflicting events, date of the Ninth Annual Alfred A. Strauss Lecture, sponsored by the Department of Surgery of the University of Washington School of Medicine, has been changed from November 7 to Wednesday, November 5. Physicians are invited to be at the Auditorium of the University Health Sciences Building at 8:15 p.m. to hear Professor Charles F. W. Illingworth, Regius Professor of Surgery at the University of Glasgow, Scotland, discuss Endocrine Aspects of Breast Cancer.

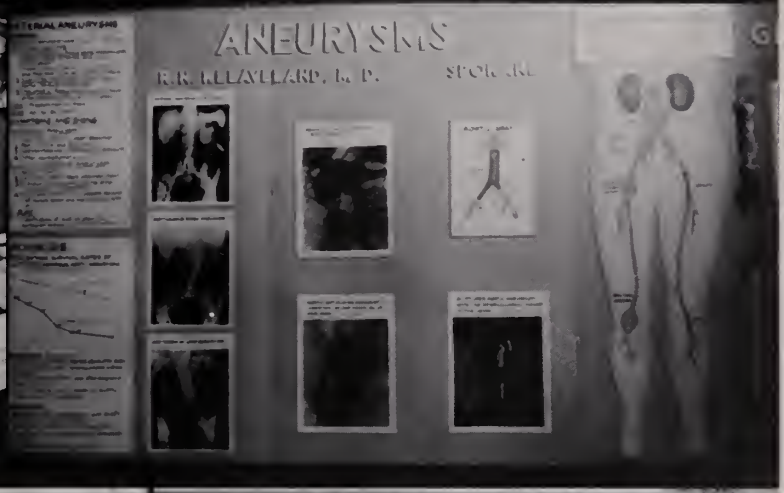
Professor Illingworth is president of the British Society of Gastroenterology and past-president of the Association of Surgeons of Great Britain and Ireland, and the Surgical Research Society. He will spend the entire week of November 2 in the Department of Surgery, where he will participate in ward rounds, operating room demonstrations and seminars at King County Hospital, Seattle. An invitation is extended also to physicians to attend these functions.

Scientific And Technical Exhibits—*Facing Page:* Scientific sessions and the seientific and technical exhibits were well-attended by those partieipating in the 69th An nual Convention of Washington State Medical Association at the Davenport Hotel, Spokane, September 14-17. Fift een scientific exhibits were displayed in the Hotel Lobby and Hall of Doges. Technical exhibitors numbered 67 fo r the 1958 annual session.


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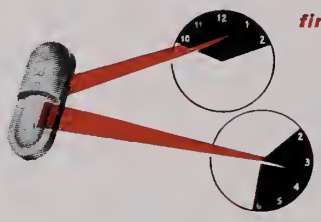
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Washington Diabetes Association Opens New Offices in Seattle

Washington Diabetes Association, accredited affiliate of the American Diabetes Association, has opened new offices at 1000 Seneca Street in Seattle. Joseph H. Crampton of Seattle, president of the Washington Association, has announced that the office will be open from 10:00 a.m. to noon and from 12:30 p.m. to 2:30 p.m. daily, Mondays through Fridays. Physicians are invited to visit the new offices and become acquainted with Mrs. Gladys M. Barker, Executive Secretary, and the activities of the Association.

During the spring of 1959, the Clinical Society of the Washington Diabetes Association will conduct postgraduate courses for the medical profession. Nationally known speakers will present papers on subjects in the field of metabolism and endocrinology.

The affairs of the Diabetes Trust Fund and the Diabetes Teaching and Research Foundation will be conducted also through these same Seattle offices.

Problems and Treatment of Alcoholism To Be Discussed in Tacoma October 21-22

Physicians interested in the problems and treatment of alcoholism are invited by Mr. Robert Tatham, executive secretary of the Division of Alcoholism, Department of Institutions, to attend a conference on alcoholism at the Winthrop Hotel in Tacoma, October 21 and 22. Marvin Block, chairman of the AMA Committee on Alcoholism, will be the featured speaker at each evening session.

J. Lester Henderson of Seattle, chairman of the Seattle Committee on Alcoholism, urges a good turnout for this meeting. He states that since alcoholism is a public health problem of major magnitude, the skilled training and resources of the medical profession will be of corresponding importance in the formulation of an approach to the problem and the working out of a treatment program.

A detailed program of the conference may be obtained by addressing a request to Mr. Tatham in Olympia.

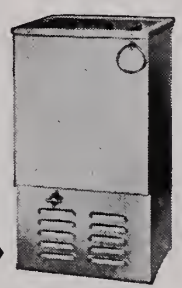
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SIXTY-SEVENTH ANNUAL MEETING
June 14-17, 1959
Sun Valley

President, Donald K. Worden, Lewiston Secretary, Max D. Gudmundsen, Boise Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

Resolutions Considered At 66th Annual Session

Following are some of the resolutions considered by the House of Delegates of the Idaho State Medical Association during the 66th annual session, Sun Valley, July 6-9, 1958. The action of the House is in italics.

RESOLUTION No. "A"

Whereas, the Idaho State Bar Association has adopted a Statement of Principles Governing Certain Physician-Lawyer Relationships, and

Whereas, the Statement contains essential principles which could lead to a much closer relationship with members of the legal profession,

Whereas, a liaison committee should be appointed from the medical association to work with members of a similar committee of the legal profession, and

Whereas, members of the two professions be encouraged to report to the liaison committee incidents and accidents that might lead to suit,

Now, Therefore Be It Resolved that the House of Delegates of the Idaho State Medical Association hereby adopt the Statement of Principles Governing Certain Physician-Lawyer Relationships, and

Be It Further Resolved that copies of the Statement be furnished all members of the medical profession in Idaho; that necessary costs for publishing the statement be shared with the Idaho State Bar Association on a pro-rated membership basis.

Resolution No. "A" was adopted by the House of Delegates.

* * *

RESOLUTION No. "B"

(Amended by the Reference Committee on Insurance, Medical Affairs and Welfare.)

Resolved that a Maternal Welfare Committee be established at a state level for the purpose of investigating and evaluating maternal deaths within the State of Idaho. That the purpose of the Committee be education only.

That the Committee be composed of five members, the Chairman of the Committee to come from the Idaho Obstetrical and Gynecological Society, and one member from each Councilor District to be appointed by the Councilor of each District.

That the mechanism of operation embody the principles as set forth in the publication, "A Guide for Maternal Death Studies," published in 1957 by the Committee on Maternal and Child Care, Council on Medical Service of the A.M.A.

Resolution No. "B", as amended, was adopted by the House of Delegates.

* * *

RESOLUTION No. "C"

Whereas, the State Civilian Defense Administration has prepared a new program of the organization including plans for medical and related services in the event of a disaster, and

Whereas, the plan divides the state into six districts to aid in handling personnel, reports and other matters in event of an emergency, and

Whereas, the State Civilian Defense Administration has requested the Idaho State Medical Association to designate a representative of the profession to serve as District Director in each of the six districts and the designation of a medical representative in each county to serve as County Civilian Defense Medical Director,

Now, Therefore Be It Resolved that the President of the Idaho State Medical Association designate six members of the profession to serve as District Medical Directors in the State Civilian Defense Plan in Coeur d'Alene, Lewiston, Boise, Pocatello, Shoshone and Rigby, and

Further, that the President designate the County Health Officer, County Physician, or private practitioner, to serve as County Civilian Defense Medical Directors in each of the State's 44 counties.

Resolution No. "C" was adopted by the House of Delegates.

* * *

RESOLUTION No. "D"

Whereas, there exists the possibility of the establishment of a two-year medical school in the State of Idaho, and

Whereas, residents and organizations within and without the State of Idaho may wish to support such a school by bequeathing or donating funds, real estate or objects of value to the establishment of such school and its operation, and

Whereas, a method of accepting, managing and administering such gifts should be established in accordance with Idaho law,

Now, Therefore Be It Resolved that the IDAHO MEDICAL SCHOOL FOUNDATION be established and that essential Articles of Incorporation be prepared and filed in accordance with Idaho laws, and

Further, that the Articles of Incorporation designate the Officers and Councilors of the Idaho State Medical Association as the perpetual Board of Trustees of the IDAHO MEDICAL SCHOOL FOUNDATION and that they be empowered to receive and administer all funds, real estate or objects of value bequeathed or contributed to the foundation, and

Further, that as the Board of Trustees, the Officers and Councilors of the Idaho State Medical Association

(Continued on page 1354)

(Continued from page 1353)

prepare rules and regulations necessary to carry on the purpose and objective of the Foundation, to administer, manage, and disperse all funds, real estate and objects of value received by the Foundation and to annually prepare a report of the Foundation's activities including but not limited to a financial report.

The House of Delegates voted to table this resolution to be re-introduced at some future time when feasible.

° ° °

Resolution No. "E"

Whereas, as Governor of the American Diabetes Association for the State of Idaho, I have had requests from two areas in the state for the formation of lay affiliates to that organization, and

Whereas, such lay affiliates cannot be formed until a professional affiliate has been organized for guidance, and

Whereas, an Idaho Diabetes Association could be instrumental in the education of the medical profession and lay public concerning diabetes, and diabetes detection,

Therefore Be It Resolved that the Idaho State Medical Association approve the formation of an Idaho Diabetes Association, as an affiliate of the American Diabetes Association.

(The Reference Committee on Miscellaneous Business recommended rejection of the resolution for the reason that diabetes was represented on the Allied Medical Services Committee and felt a duplication would exist if the resolution were adopted.)

Resolution No. "E" was rejected by the House of Delegates.

In-State Meetings

A meeting devoted exclusively to Public Relations was sponsored by Southwestern Idaho District Medical Society in Boise on Thursday, September 25. The program for the session was arranged by the society's Public Relations Committee headed by Joseph M. Thomas of Boise. Guest speaker for the session was Mr. Leo Brown, Chicago, Director of Public Relations, American Medical Association.

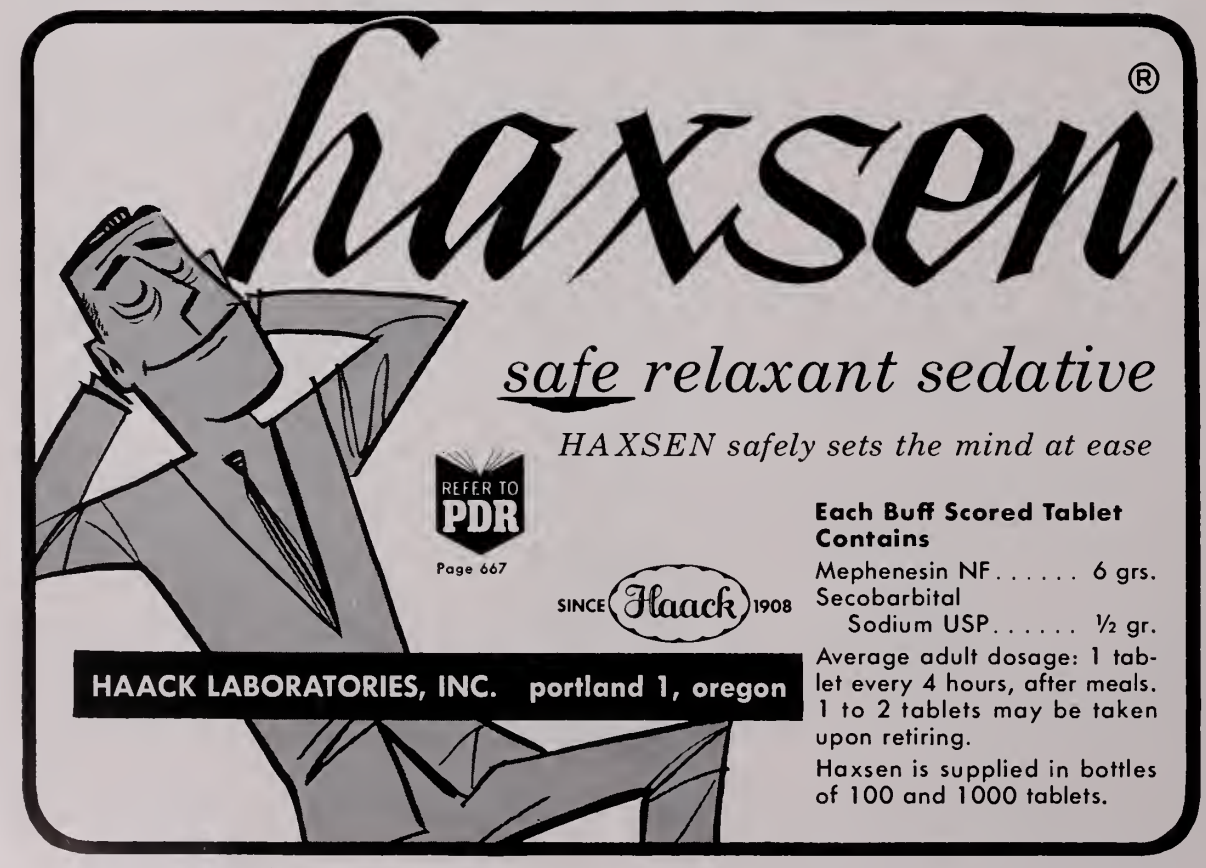
° ° °

Utah-Idaho American College of Physicians and the Idaho Society of Internal Medicine, held a combined meeting at Sun Valley, September 26-27. Richard P. Howard, Pocatello, is Governor for the College of Physicians, and William D. Forney, Boise, is President of the internists' society.

° ° °

Seventh Annual Meeting of the Idaho Academy of General Practice will be held in Boise, October 9-10, Dr. Louis F. Lesser, Boise, President, has announced. Speakers for the session include Chester Swinyard, department of physical medicine and rehabilitation, New York University; William Hoffman, associate professor of neurology, Stanford University; M. Erick Wright, professor of psychology, University of Kansas School of Medicine; and Stuart Knox, associate clinical professor of psychiatry, College of Medical Evangelists, Loma Linda, Cal.

R. B. Robins, Camden, Arkansas, member of the Board of Trustees of the American Medical Association, and a Past-President of the American Academy of General Practice, will be banquet speaker.



The program for the session was arranged by a committee under the chairmanship of Joseph M. Thomas, Boise.

Louis F. Lesser of Boise, president of the Idaho Academy, has announced the annual business meeting including election of officers for the coming year, will be held Saturday, October 10 at 10:00 a.m. in the Hotel Boise.

Out-of-State Meetings

F. Wayne Schow, Twin Falls, Councilor, District No. Three, was the official representative of Idaho State Medical Association at the 63rd annual meeting of the Utah State Medical Association, Salt Lake City. He presided at the scientific program of the meeting on Thursday, September 11. The session was held in the Hotel Utah Motor Lodge.

Fred E. Wallber, Idaho Falls, Councilor, District No. Four, represented the Association at a two-day meeting in Chicago, September 13-14 called by AMA's Council on Medical Service Committee on Aging. Dr. Wallber has been appointed to serve as Chairman of a new Committee on Aging of the State Association by President Worden.

Secretary-Treasurer Max D. Gudmundsen, Boise, representing President Worden and the Association, was the banquet speaker at the annual meeting of the Idaho Practical Nurses Association, Simplot Hall, Caldwell, August 6.

State Board of Medicine

S. M. Poindexter, Boise, Chairman of the State Board of Medicine, has been re-appointed a member of the Executive Committee of the Federation of State Medical Boards to fill the unexpired term of Wilmot C. Foster, Portland, a former member of the Oregon State Board of Medical Examiners, deceased. Dr. Poindexter previously served a two-year term on the Executive Committee of the Federation which terminated in 1957.

* * *

Two Temporary Licenses were granted in August. Receiving them were:

Harold Pratt Sutherland, 1050 Memorial Drive, Idaho Falls. Graduate Northwestern University School of Medicine. M.D. degree 1954. Internship U.S. Public Health Service Hospital, San Francisco. Residency obstetrics and gynecology, Dee Hospital, Ogden, Utah; Kaiser Hospital, Oakland, Cal. Granted T-209, August 8. Obstetrics-Gynecology.

James David Ball, Sun Valley. Graduate Hahnemann Medical College, Philadelphia. M.D. degree 1954. Internship Robert Packer Hospital, Sayre, Pa., 1955. Residency in anesthesiology, Mary Hitchcock Memorial Hospital, Boston, Mass. Granted T-210 August 28. Anesthesiology.

ISMA Officers and Councilors Hold Meeting

The first meeting of the Officers and Councilors since the 66th annual meeting at Sun Valley was held at President-Elect Quentin W. Mack's summer home at McCall, September 18-19-20. A lengthy agenda, including such items as revision of the annual association meeting, committee appointments, insurance, minutes of the 66th annual meeting, the possibility of a mid-winter meeting of the House of Delegates, voluntary health agencies, visits to the component societies, legislature, medicare and many other items were considered by the Officers and Councilors.

Those attending the meeting were President Worden; Immediate Past-President Hoyt B. Woolley; President-Elect Mack; Secretary-Treasurer Max D. Gudmundsen; Councilors Robert E. Staley, Richard D. Simonton, F. Wayne Schow, Fred E. Wallber; AMA Delegate Raymond L. White; Alternate AMA Delegate Alexander Barclay, and the Executive Secretary.



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Finnerty, F. A. Jr.: New York State J. Med. 57: 2957 (Sept. 15) 1957.

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Corrin, K. M.: Am. Pract. & Dig. Treatment 8: 721 (May) 1957.

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American Hospital Association Plan for Government Payment to Hospitals

The House of Delegates of the American Hospital Association, meeting in Chicago last month, adopted a statement of policy with respect to meeting the hospital needs of the aged. The statement, which supercedes all previous actions taken by the association, follows:

1. The American Hospital Association is convinced that retired aged persons face a pressing problem in financing their hospital care.

2. It believes that federal legislation will be necessary to solve the problem satisfactorily. It has, however, serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged.

3. It believes that all possible solutions must be vigorously explored, including methods by which the dangers inherent in the Social Security approach can be avoided.

4. It believes that every realistic effort should be made to meet the hospital needs of the retired aged principally through mechanisms utilizing existing systems of voluntary prepayment. However, it is conceivable that the use of Social Security to provide the mechanisms to assist in the solution of the problem of financing these needs may be necessary ultimately.

5. It believes that any legislation developed to provide for government participation to meet the hospital needs of the retired aged should be so devised as to strengthen the voluntary prepayment systems, and should conform to the following principles:

a. Legislation designed to provide for the hospital needs of the retired aged should provide essential hospital services and should exclude custodial care provided for non-medical reasons.

b. Government participation should be restricted to persons over 65 who are not regularly and substantially employed. The voluntary prepayment system provides a satisfactory mechanism for the coverage of other persons, regardless of age.

c. Any program in which the federal government participates to meet the hospital needs of the nonindigent aged should emphasize individual responsibility and make the application of a means test unnecessary for obtaining benefits.

d. Such a program should be based on the service benefit principle and should provide benefits sufficiently comprehensive to remove the major economic barriers to hospital care for the retired aged.

e. Such a program should make benefits available through non-profit prepayment plans.

f. Hospitals should be paid fully for the cost of care rendered.

g. Such a program should not provide services in facilities operated by the federal government.

h. Such a program should provide reasonable criteria to determine the eligibility of hospitals to participate, but the federal government should be precluded from interfering in the administration and operation of hospitals providing the services.

i. Such a program should maintain the free choice of doctor and hospital by the recipient.

j. Such a program should permit and encourage continuous adaptation to new knowledge in the provision of services. •

From AMA Secretary's Letter of Aug. 25, 1958.



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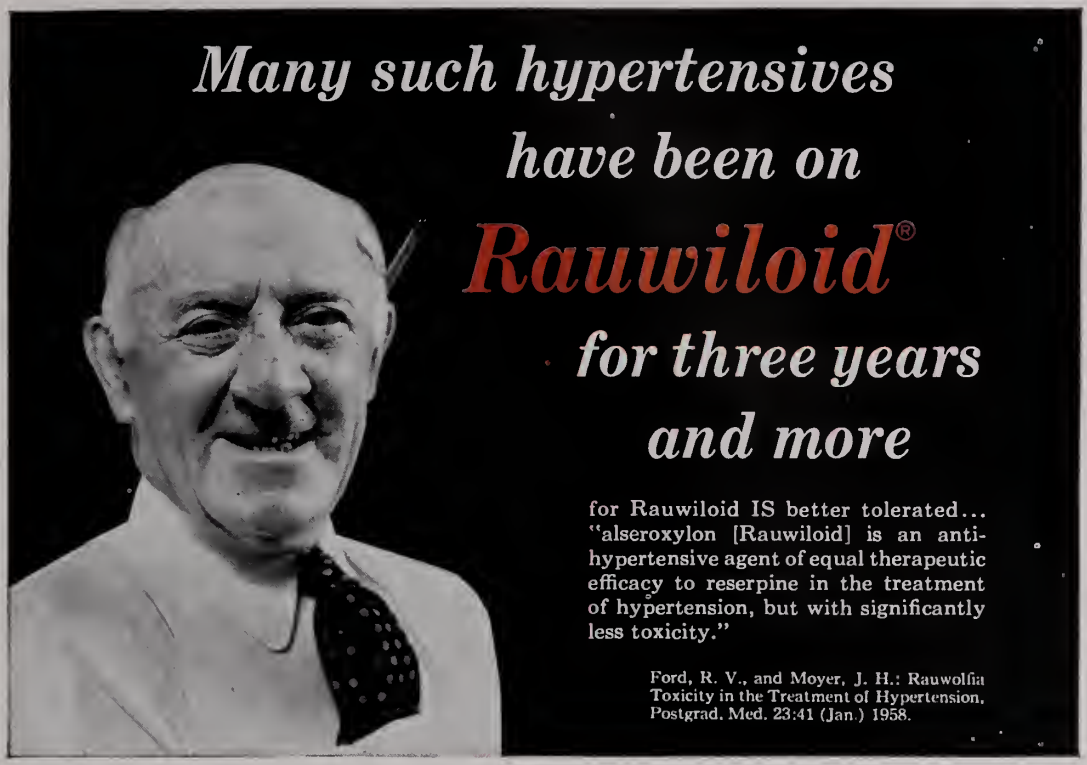
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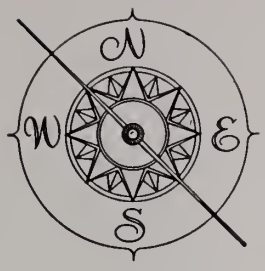
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—Francis Bacon

RECEIVED

The following books have been received. Publicotion or this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Practice of Nuclear Medicine. By William H. Blahd, M.D., Chief, Radioisotope Service, Veterans Administration Center, Los Angeles, Calif.; Assistant Clinical Professor of Medicine, School of Medicine and Medical Physics Physician, Radiological Safety Division, University of California at Los Angeles; Franz K. Bauer, M.D., Chief Outpatient Services, Los Angeles County Hospital; Associate Clinical Professor of Medicine and Coordinator of Radioisotope Research, University of Southern California School of Medicine; Associate Clinical Professor of Medicine, College of Medical Evangelists School of Medicine; Benedict Cassen, Ph.D., Chief, Medical Physics Section, Atomic Energy Project and Clinical Professor of Biophysics, University of California at Los Angeles School of Medicine. Introduction by Paul Aebersold, Ph.D., Assistant Director of Isotopes and Radiation. Division of Civilian Application, United States Atomic Energy Commission. Foreword by Joseph F. Ross, M.D., Associate Dean, Professor of Medicine and Radiology, School of Medicine, University of California at Los Angeles. 407 pp. Illustrated. Price $12.50. Charles C Thomas, Springfield, Ill. 1958.

Congenital Anomalies of the Hand And Their Surgical Treatment. By Arthur Joseph Barsky, M.D., D.D.S., Attending Surgeon for Plastic Surgery, Mt. Sinai Hospital, New York City; Professor of Clinical Surgery, Albert Einstein College of Medicine, New York City, Fellow of the New York Academy of Medicine; American Board of Plastic Surgery, American Society for Surgery of the Hand; American Society of Plastic and Reconstructive Surgery; American Association of Military Surgeons; Associate Member of the Brazilian College of Surgeons; British Association of Plastic Surgeons, and Mexican Association of Plastic Surgeons; Formerly Lieutenant Colonel, M.C., A.U.S. 165 pp. Illustrated. Price $5.75. Charles C Thomas, Springfield, Ill. 1958.

Hospital Planning for the Anesthesiologist. By William H. L. Dornette, M.D., Professor of Anesthesiology and Head of the Department, University of Tennessee College of Medicine, Memphis, Tennessee; Anesthesiologist-in-Chief, The John Gaston Hospital; Chairman, Committee on Hospital Planning and Construction, American Society of Anesthesiologists 1954-1958; Formerly, Assistant Professor of Anesthesiology, University of Wisconsin College of Medicine, Madison, Wisconsin; University of California School of Medicine, Los Angeles, California. 119 pp. Illustrated. Price $5.25. Charles C Thomas, Springfield, Ill. 1958.

Bibliography of International Congresses of Medical Sciences. Prepared by W. J. Bishop under the auspices of the Council for International Organizations of Medical Sciences with the financial assistance of Unesco. 238 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

Human Dissection—Its Drama and Struggle. By A. M. Lassek, M.D., Ph.D., Department of Anatomy, Boston University School of Medicine, Boston, Massachusetts. 310 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Ill. 1958.

Ciba Foundation Colloquia on Endocrinology, Vol. XII: Hormone Production in Endocrine Tumors. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Maeve O'Connor, B.A. 351 pp. 58 illustrations. Cumulative index to Vols. 1-12. Price $9.00. Little Brown and Co., Boston. 1958.

Clinical Neuroanatomy, Neurophysiology and Neurology with a Method of Brain Reconstruction. By Louis Hausman, M.D., Professor of Clinical Medicine (Neurology), Cornell University Medical College; Clinical Professor of Neuropsychiatry, New York University College of Medicine. 522 pp. Price $9.75. Charles C Thomas, Springfield, Ill. 1958.

(Continued on page 1364)

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(Continued from page 1361)

Epilepsy Handbook. By Frederic A. Gibbs, M.D., Professor of Neurology and Director of the Division of Electroencephalography, University of Illinois, School of Medicine, Chicago, Illinois; Frederick W. Stamps, M.D., Director of the Consultation Clinic for Epilepsy, University of Illinois, School of Medicine, Chicago, Illinois. 101 pp. Illustrated. Price $4.75. Charles C Thomas, Springfield, Ill. 1958.

Blood Groups in Man. Ed. 3. By R. R. Race, Ph.D. (Cambridge), M.R.C.S. (England), F.R.S., Director, Medical Research Council Blood Group Research Unit, The Lister Institute, London; and Ruth Sanger, Ph.D. (London), B.Sc. (Sydney), Medical Research Council Blood Group Research Unit, The Lister Institute, London. Foreword by Professor Sir Ronald Fisher, F.R.S. 377 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlamert, Librorion, King County Medical Society Library, Room 121, Cabb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

DRUGS: THEIR NATURE, ACTION AND USE. By Harry Beckman, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry. 728 pp. Illustrated. Price $15.00. W. B. Saunders Co., Philadelphia and London. 1958.

This is a superb textbook of pharmacology. It represents a very significant achievement by a man whose reputation in the field of therapeutics is indeed well established. The first portion of the book deals with the basic and general principles of pharmacology with excellent clinical correlation. It is presented in an interesting, easily readable fashion. The bulk of the book deals, of course, with specific drugs. The tedious descriptions of physical properties of drugs and historic data are omitted. And the categorizations seem so reasonable.

The material is entirely up-to-date. There is reference to that which is relevant in recent literature with adequate bibliographies. It is refreshing to find omitted the archaic drugs and therapies which are carried over, decade after decade, in each new edition of older textbooks of pharmacology. It is surprising to find that the proprietary names of drugs are not deliberately avoided.

In the preface the author describes this as a text for medical students. I feel that this book may very profitably be used by the practicing physician to supplement the very often superficial exposure to information regarding the nature and action of drugs.

Abby Franklin, M.D.

FUNDAMENTALS OF GENERAL SURGERY. By John Armes Gius, M.D., D.Sc. (Med.) Professor of Surgery, College of Medicine, State University of Iowa. 720 pp. Illustrated. Price $12.50. Year Book Publishers, Inc., Chicago. 1957.

This book lives up to its title. It does represent true fundamentals of surgery and is written by a man who has a long and useful career in teaching students of the undergraduate level.

The author is very deferential in his preface and in the philosophy of the book in that he does not



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General Surgery, Two Weeks, November 10; One Week, October 27.
Fractures & Traumatic Surgery, Two Weeks, December 1.
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purport to present all the material that there is in the complicated ramifications of the surgical art. Instead, he says that he wishes to introduce students to the field with the anticipation that those who are interested will do additional reading to add to the foundation which he so effectively builds.

None of this is to suggest that Dr. Gius has written a primer. The book deserves a place on the shelf of any surgical library as a foundation book, one upon which the student may later build. The printing is excellent. The illustrations are clear and seem, at least to me, well to emphasize those points which the author wishes to make.

It is my impression that Dr. Gius' book fulfills the need which has been present for some time in surgical teaching. One cannot argue that a single philosophy provides an excellent foundation for the approach to any discipline, no matter how complicated and extensive that discipline may become. Dr. Gius is a general surgeon in the best sense of the word and gives a general surgeon's approach to physiologic principles underlying surgery to common surgical conditions and to surgical therapy. He has done a fine job.

Dean K. Crystal, M.D.

A SEARCH FOR MAN'S SANITY. The Selected Letters of Trigant Burrow with Biographical Notes. Prepared by the Editorial Committee of the Lifwynn Foundation, William E. Galt, Chairman. Foreword by Sir Herbert Read. 615 pp. Price $8.75. Oxford University Press, New York. 1958.

It may seem unfair for a psychoanalyst to review the work of a man who, though one of the founders of the American Psychoanalytic Association, was asked to resign, probably on the basis of his dissident views but actually for reasons less clear. However, many analysts, including myself, depart from Freud and I think most all of us agree that there is much to be learned about man's social and psychologic problems. I must say that I found little that could be called great, revealing or new in Dr. Burrow's writings in this area.

The book is an attempt to reveal the man and his thinking through a large collection of his letters since, as the foreword states, few could understand his scientific work and writings. Unfortunately, his letters do not make his ideas much clearer. The editors have helped to muddy the situation by including many letters that are mundane and not cogent to the purpose of the book, as if every word he uttered were of tremendous value. Most of the letters are wordy, often flowery and say very little. It seems as if he were perseverating in some attempt to explain himself and others without ever making anything very clear. Many phrases sound quite meaningful but further thought about them leaves one feeling frustrated, just as a child feels when he is about to capture a soap bubble only to have it explode into nothingness.

I can understand how some people would feel that his thinking was at least the beginning of an answer to all our problems. Here and there his letters reveal that he, like many others, had inklings of some great "truth" but I do not see that any real contribution has come out of this. Over and over I got the feeling that he was in search of his own "sanity," as so many of us are these days, and through his work succeeded in some measure. It is obvious that psychoanalysis originally held great hope for him but he was keenly disappointed as were so many in the early days. A more sympathetic review might well be written but I think it would be misleading.

Robert L. Worthington, M.D.

MOSBY'S REVIEW OF PRACTICAL NURSING. Ed. 2. 354 pp. Price $4.25. The C. V. Mosby Co., St. Louis. 1957.

Throughout the country there has been an increased interest expressed in the length of time necessary for both student nurses and student practical nurses to complete an education program which would enable them to become safe practitioners of nursing in their respective categories. Rapid

(Continued on page 1367)



When the bronchial tree has too much "bark"

make cough MORE PRODUCTIVE, LESS DESTRUCTIVE

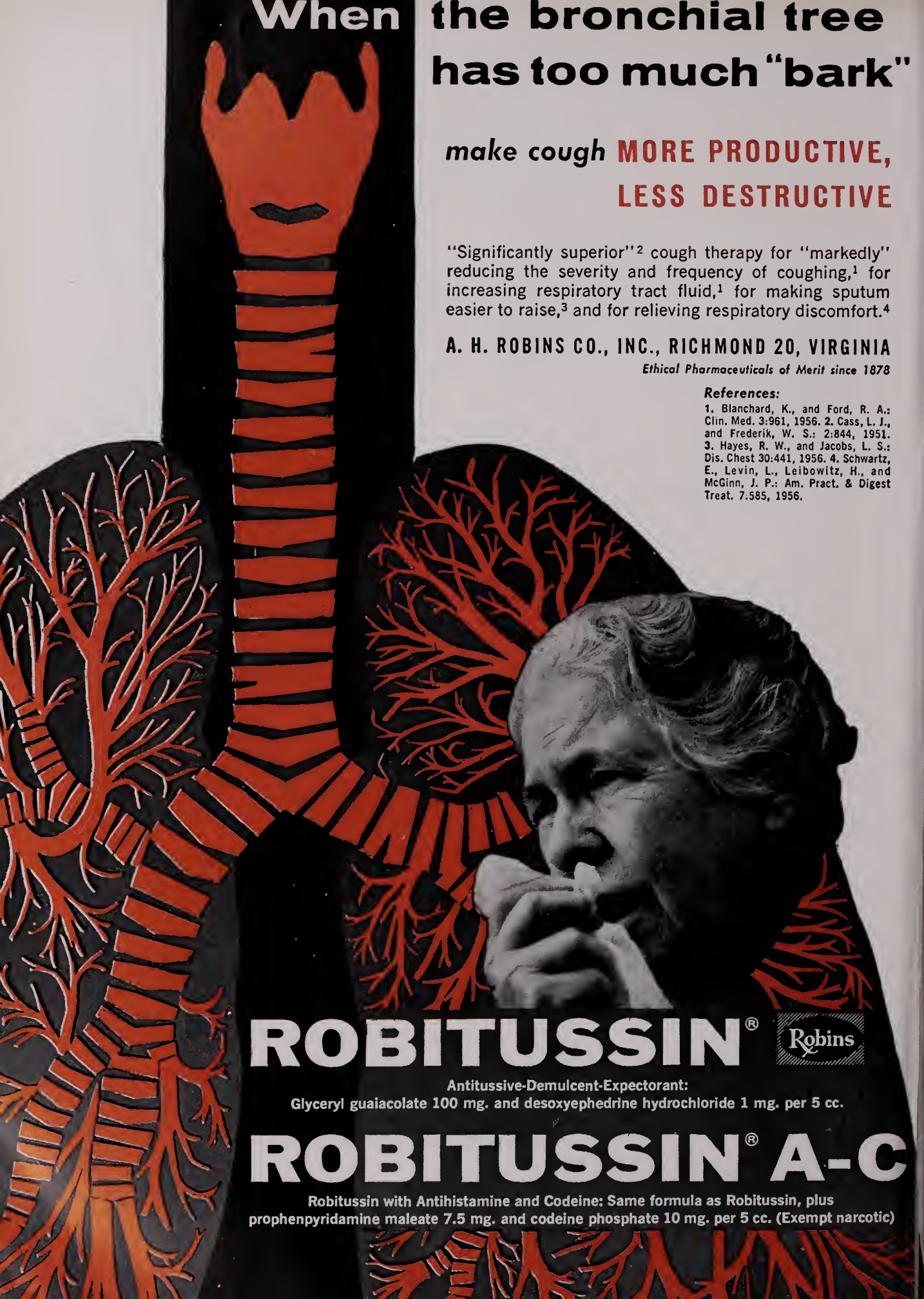
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References:

1. Blanchard, K., and Ford, R. A.: Clin. Med. 3:961, 1956. 2. Cass, L. J., and Frederik, W. S.: 2:844, 1951. 3. Hayes, R. W., and Jacobs, L. S.: Dis. Chest 30:441, 1956. 4. Schwartz, E., Levin, L., Leibowitz, H., and McGinn, J. P.: Am. Pract. & Digest Treat. 7.585, 1956.



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(Continued from page 1365)

changes taking place in health practices today, in conjunction with more and more emphasis on preventive medicine, are influencing the preparation necessary for practical nurses as members of the professional team and the functions they are being called upon to perform.

There has been, and no doubt will continue to be, an increased demand for adequately prepared licensed practical nurses. The second edition of Mosby's Review of Practical Nursing is an excellent tool for practical nurse educators and student practical nurses. It also provides excellent review material for the already licensed practical nurse. Content has been broadened and deepened with the inclusion of entirely new units on the administration of medications, rehabilitation nursing, and nursing of the mentally ill. The outline type of presentation should be helpful both to instructor and student.

Each unit is preceded by a concise but adequate list of references to be used in conjunction with the material presented and is concluded with a comprehensive and extensive set of review questions.

This book is not only abreast of the rapid changes taking place in health practices today but appears too comprehensive and advanced at this time for the category of nursing with which it deals. In recommending its use to those connected with practical nurse education, it should be pointed out that some of the content is advanced, requiring both carefully planned learning experiences and supervision as far as the individual student is concerned in order that she become a really safe practitioner of nursing at the level for which she is being educated to practice.

Frances H. Zaleski. R.N., M.N.

Miss Zaleski is a former instructor in Pediatric Nursing at the University of Washington School of Nursing and is now a candidate for a Ph.D. in nursing. Ed.

PRACTICAL ELECTROCARDIOGRAPHY. Ed. 2. By Henry J. L. Marriott, M.D., Associate Professor of Medicine, University of Maryland. Illustrated by Marci Ethridge Perry. 226 pp. Price $5.00. The Williams & Wilkins Company, Baltimore. 1957.

A review of this volume must begin with a statement by the author. "The text is designed to be digestible for beginners, yet not without value to those who already have a nodding acquaintance with electrocardiography."

This book is very readable and the main points in the interpretation of the electrocardiogram are covered. It is not intended to aid in interpretation of complicated graphs and does not do so.

The arrangement of illustrations deserves special commendation. Illustrative tracings are placed in such position as to make them easily followed as the descriptive text is read. The use of review tracings at the end of chapters and the inclusion of references here are excellent additions.

This volume would be a valuable aid to the beginner in electrocardiography.

Sydney Weinstein, M.D.

SURGERY IN WORLD WAR II: OPHTHALMOLOGY AND OTOLARYNGOLOGY. Colonel John Boyd Coates, Jr., MC, Editor-in-Chief; M. Elliott Randolph, M.D., Editor for Ophthalmology; and Norton Canfield, M.D., Editor for Otolaryngology; Elizabeth M. McFetridge, M.A., Associate Editor. 605 pp. Illustrated. Price $5.00. Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. 1957.

The list of consultants, whose unbiased and critical reports give this book an integrity and stature uniquely its own, reads like a portion of Who's Who in ophthalmology and otolaryngology. Among the names to conjure with in ophthalmology are the following contributors: M. Elliott Randolph, Trygve Gundersen, Derrick T. Vail, James N. Grear, Jr., George M. Haik, and John S. McGavic. Norton Canfield heads an equally distinguished group of surgical consultants in otolaryngology. The book is divided into two parts; Part I (Ophthalmology)

(Continued on page 1368)

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SEARLE

(Continued from page 1367)

consists of 378 pages, edited by Col. M. Elliott Randolph; Part II (Otolaryngology), edited by Col. Norton Canfield, appears complete although limited to 227 pages.

It was refreshing to detect certain apparent frustrations that evidently irritated and upset these outstanding consultants brought in from civilian life to contend with the incredible demands of Army medicine in a wartime situation. Unhappily, administrative lessons learned in World War I were not applied in World War II. To quote Col. Canfield. "In World War II, in contrast to the early development of a section on otolaryngology, an otolaryngologic branch was not established in the Surgeon General's Office until July, 1944." Not until June 1944 was a section in ophthalmology created in the Surgery Division of the Office of the Surgeon General. Antiquated tables of organization from World War I made no provision for the proper staffing of officer personnel for the departments of ophthalmology and otolaryngology in station, evacuation, or general hospitals. Not until 1944 was this situation corrected.

Outstanding contributions in ophthalmology include the following chapters: the rehabilitation of blind casualties, the management of intraocular foreign bodies, nutritional amblyopia in American prisoners of war held by the Japanese, and visual disturbances associated with head injuries. Of particular interest in the otolaryngologic portion are these chapters: narcosynthesis in the management of functional deafness, auditory impairment due to battle-incurred acoustic trauma, and facial paralysis in military personnel.

It will take another war to learn if the lessons contained in this revealing book will help overcome some of the medical obstacles of total war.

Gilbert N. Haffly, M.D.

VIRAL ENCEPHALITIS, A Symposium. Fifth Annual Scientific Meeting of Houston Neurological Society, Texas Medical Center, Houston, Texas. Compiled and Edited by William S. Fields, Professor and Chairman, Division of Neurology, Baylor University College of Medicine. 225 pp. Illustrated. Price $7.00. Charles C Thomas, Springfield, Ill. 1958.

This is a brief, readable account of our knowledge and current research endeavors in this rapidly advancing field of medicine. Although this volume deals principally with encephalitis, it necessarily touches on the entire field of virology. The editors have condensed a large volume of information that cannot be easily digested in a single reading. The large section on pathology of inclusion body encephalitis is especially technical but well documented and beautifully illustrated.

Other contributors deal with classification, arthropod-borne encephalitis, clinical and laboratory diagnosis and post-encephalitic manifestations. The concluding chapter concerns the current advances in the control of rabies and poliomyelitis and serves to illuminate the research trend of thinking.

This book makes enjoyable and informative reading and should be available to all medical practitioners.

Phillip J. Suver, M.D.

ENDOCRINE PATHOLOGY OF THE OVARY. By John McLean Morris, M.D., Associate Professor of Gynecology, Yale University School of Medicine, New Haven; and Robert E. Scully, M.D., Clinical Associate in Pathology, Harvard Medical School. 151 pp. Illustrated. Price $8.50. The C. V. Mosby Co., St. Louis. 1958.

This is an interesting, consise monograph of 133 pages including 74 excellent photomicrographs. Its purpose is to correlate pathologic ovarian changes with clinical endocrine findings.

Chapter one nicely reviews embryology and physiologic endocrinology, pointing out common denominators possessed by both male and female gonads. How many readers know that female





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pseudo-hermaphroditism is usually the result of prenatal hyperplasia of the fetal adrenal cortex? It is incorrect to strictly associate gonad, or cell type, with specific hormones. For instance, the follicle apparatus can produce masculinizing hormones.

Chapter two deals with non-neoplastic abnormalities of the ovaries, such as the adreno-genital syndrome, polycystic ovaries, cortical stromo-hyperplasia (twice as frequent in endometrial and breast carcinoma as in non-cancer) and hilar, Leydig-cell hyperplasia.

Functioning ovarian tumors, such as granulosa and theca cell tumors (more than 1,000 and 300 respectively reported to date), the authors remind us, show clinical symptoms mainly due to estrogen production and endometrial hyperplasia is practically routine. Sertoli-Leydig cell tumors, even less common than granulosa-theca tumors, are interestingly discussed in their histogenesis, pathology and endocrine effects, the classical clinical picture being defeminization followed by masculization.

The final chapters briefly summarize the lipoid tumors and their endocrine deviations. These are: adrenal-like tumors, luteomas, Leydig-cell tumors, etc. Elevation of urinary 17-Ketosteroids is the most consistent abnormal finding.

Germinomas (predilection for the right ovary) and teratomas are not accompanied by endocrine manifestations but may be associated with precocity and intersexuality.

Rarely, but occasionally primary in the ovary (40 to 50 cases reported), chorio-carcinoma shows nests of Langhans cells or endoplastic trophoblasts. Struma ovarii (thyroid tissue) is frequently accompanied by other teratomatous elements—i.e., dermoid cysts.

Tumors with functioning stroma such as cystadenomas, Brenner tumors, are suggested to have estrogen-producing capabilities accompanied by abnormal uterine bleeding though the authors state that endocrine manifestations are low.

The chronicle of symptoms, endocrine changes and general incidence of intersexuality is well, though briefly, outlined. This is a good book for the gynecologist who is, as he should be, an amateur pathologist. It may be viewed as slightly esoteric, however. If one is looking only for a classification of ovarian disorders which can be mentally tabulated, this is not the answer. Due to considerable theoretic discussion, it is not exactly a clinical text book, but the authors (Yale and Harvard men) demonstrate that the Ivy league can stir us out of routine thought-grooves and endocrine empiricism.

Donald Thorp, M.D.

SYMPOSIUM ON DISEASES AND SURGERY OF THE LENS. Editor, George M. Haik, M.D., Professor of Ophthalmology and Head of Department, Louisiana State University School of Medicine; Associate Editor, Elizabeth M. McFetridge, M.A.; and Art Editor, Don Alvarado, Assistant Professor of Medical Illustration and Head of Department, Louisiana State University School of Medicine. 260 pp. Illustrated. Price $10.50. The C. V. Mosby Co., St. Louis. 1957.

The combined knowledge of six ophthalmologists and one Ph.D. in ophthalmic chemistry has been compiled in this excellent book by Dr. Haik. It covers the proceedings of the Fifth Annual Session of the New Orleans Academy of Ophthalmology (1956). Although the discussions are extremely practical, the individual contributors include sufficient didactic material so that their reasons for doing things a certain way are better understood. For example, Irvine spends considerable time on the embryology, anatomy, physico-chemistry and pathology of the vitreous, a subject that is enjoying more popularity in recent years. Cordes starts the book off with his usual excellent review of embryology of the lens, follows it up with his popular

(Continued on page 1370)



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(Continued from page 1369)
classification of congenital and juvenile cataracts and returns in a later chapter to consider surgery of congenital cataracts. Each ophthalmologist ably presents his own views and experiences on the subject to which he was assigned. Very few, if any, of the complications of cataract surgery are omitted. In the final chapter, some 38 pages are devoted to round-table discussions during which each essayist is allowed to add his views to any question that is being considered at the moment. This book has impressed me with its usefulness in the field of cataract surgery and would be a welcome addition to the library of any practicing ophthalmologist.

Louis J. Sarro, M.D.

DIETARY PREVENTION AND TREATMENT OF HEART DISEASE. By John W. Gofman, Ph.D., M.D., Donner Laboratory, University of California, Berkeley; Alex V. Nichols, Ph.D., Donner Laboratory, University of California, Berkeley; and E. Virginia Dobbin, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. 256 pp. Price $3.95. G. P. Putnam's Sons, New York. 1958.

This book represents a major shift in dietary policy from the authors' previous low fat-low cholestrol dietary recommendations. Several newer concepts have been incorporated to reach a "recommended diet" to be used both prophylactically and therapeutically in the treatment of arteriosclerosis.

The policy (not described as such) is to drop the saturated fats markedly to about 12 to 14 per cent of the day's caloric intake; increase the unsaturated fat to about 40 per cent of the day's caloric content and remain high in protein (at least 100 Gm.). Carbohydrates are reduced in line with the finding that in some patients it is not the fat intake which makes them more susceptible to arteriosclerosis, but rather excess carbohydrate intake which unduly raises the Sf 20 to 400 lipoproteins and thus contributes significantly to a higher atherogenic index.

The reader is asked to check his own diet, so he can compare it with a recommended diet paying particularly close attention to the unsaturated fat, saturated fat, carbohydrate, and protein content. Excellent food group charts, menu suggestions, and numerous recipes are given for reference. To carry through the suggested dietary program successfully would require an unusually intelligent, well motivated reader. Most people would require considerable additional coaching to put the concepts into practice.

Unfortunately, in some respects this book seems premature. It is designed for both the physician and intelligent public to read and take advantage of the knowledge we do have regarding arteriosclerosis. It is stated that inasmuch as the recommended diet is adequate from a nutritional standpoint no harm can occur.

Admittedly, this diet may change blood cholesterol and Svedberg units in a favorable direction in many patients. But it amounts to carrying laboratory conclusions into broad recommendations without confirmatory data from either large groups of patients or whole countries such as present ethnologic studies. For some years such studies have bemoaned the 40 to 55 per cent of our caloric intake from fat, whereas in other countries having little arteriosclerosis such caloric intake is from 12 to 30 per cent. It would seem more sensible to cut the saturated fat as done to 12 to 14 per cent of the day's calories, but not to use such large amount of unsaturated fat. To keep total fat calory intake from 25 to 30 per cent in the diet would seem more in line with our knowledge of this disease from ethnologic studies.

Nearly half of the daily protein intake is derived from milk protein. Readers with milk allergies might soon become too low in protein unless under medical supervision.

In treating arteriosclerosis in patients, the phy-



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sician must have regard not only for the arterial wall but for the mind of the patient as well. These patients are living in a society where practically all their friends and commercial eating establishments serve a far different diet. To deny social dining entirely poses serious long-range psychiatric problems for the patient; on the other hand, frequent fudging of this diet results in no therapeutic effectiveness. No effort is made to clarify this important point.

This book is excellently written and effectively presents a new dietary concept which will be of interest to nearly all physicians. It is my opinion, however, that patients following the recommended diet should in all cases be under the care and observation of their physician.

Averly M. Nelson, M.D.

FUNDAMENTALS IN CARDIOLOGY. By John B. Wild, M.D., Assistant Professor, Department of Internal Medicine, Member of Cardiovascular Laboratory, University Hospital, Iowa City, Iowa. 83 pp. Illustrated. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

This book is a didactic compend of the basic science of cardiology which could well serve as an outline for a brief refresher course and worthy of many credits. The comparable and differential features of normal hearts and those with valvular lesions are compressed into 80 pages of print minus 16 pages of line illustrations.

If you feel you are getting into a cardiologic rut, knowing the clinical side but not the why and wherefores, I would recommend that you place your order post-haste.

Robert F. Foster, M.D.

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Recent clinical research demonstrated the excellent value of Supp-hose for leg fatigue, and mild disorders where heavy surgical stockings are not prescribed. The advantage of Supp-hose is that it looks just like any sheer nylon stocking, thus it overcomes one of the main objections of the patient concerned about her appearance.

SO MANY WOMEN COMPLAIN ABOUT LEG FATIGUE!

As you know, expectant mothers, housewives, working women, and women with mild varicosities all complain about discomfort of the extremities. Supp-hose eases this leg fatigue and gives gentle support all day long. Yet Supp-hose contains no rubber! Every stitch is fine nylon with a special twist that provides an elastic quality.

A VERY ECONOMICAL STOCKING!

Patented Supp-hose costs a woman just one-third what she usually pays for heavier surgical stockings. And wear tests indicate Supp-hose should give five times the wear of ordinary nylons. Supp-hose is available in proportioned sizes in beige, natural and white. At drug and department stores.

KAYSER-ROTH HOSIERY COMPANY, Inc., 200 Madison Avenue, N. Y. 16, N. Y. Sold in Canada.



essential ally of the doctor
in relieving anxiety, tension

Trilafon®

perphenazine

an "agent of choice in treating tension and anxiety"[1]

- effective without somnolence
- allows the patient to continue his normal activities

TRILAFON Tablets—2 mg. and 4 mg.; bottles of 50 and 500.

TRILAFON REPETABS,® 4 mg. for *prompt effect* in the outer layer and 4 mg. for *prolonged action* in the timed-action inner core; bottles of 30 and 100.

For complete details on TRILAFON consult Schering literature.

(1) Marangoni, B. A.: Am. Pract. & Digest Treat. *8*:1959, 1957.

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

SCHERING

TR-J-29108



complete protection

To build sound bones and teeth, and to promote body resistance to disease, infants need sufficient quantity of vitamins A, C and D. When you prescribe Special Morning Milk and orange juice, or another source of ascorbic acid, vitamin requirements are normally met. Among all brands of evaporated milk, only Special Morning Milk is fortified with both vitamins A and D (2,000 U.S.P. units vitamin A and 400 U.S.P. units vitamin D per reconstituted quart).

Special
MORNING MILK





new 3-way build-up for the under par child...

Improve appetite and energy
with ample amounts of vitamins—B_1, B_6, B_{12}.

strengthen bodies with needed protein
Through the action of l-Lysine, cereal and other low-grade protein foods are up-graded to maximum growth potential.

discourage nutritional anemia
with iron in the well-tolerated form of ferric pyrophosphate...plus sorbitol for enhanced absorption of both iron and B_{12}.

new

INCREMIN*

Lysine-Vitamins

WITH IRON SYRUP

delicious cherry flavor— no unpleasant aftertaste

Average dosage is 1 teaspoonful daily. Available in bottles of 4 and 16 fl. oz.

Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York Lederle

*Reg. U. S. Pat. Off.



In Biliary Distress

ZANCHOL®

Improves Flow and Color of Bile

Zanchol (brand of florantyrone), a distinct chemical entity unrelated to the bile salts, provides the medical profession with a new and potent hydrocholeretic for treating disorders of the biliary tract.

The high degree of therapeutic activity of this new compound and its negligible side reactions yield distinct clinical advantages.

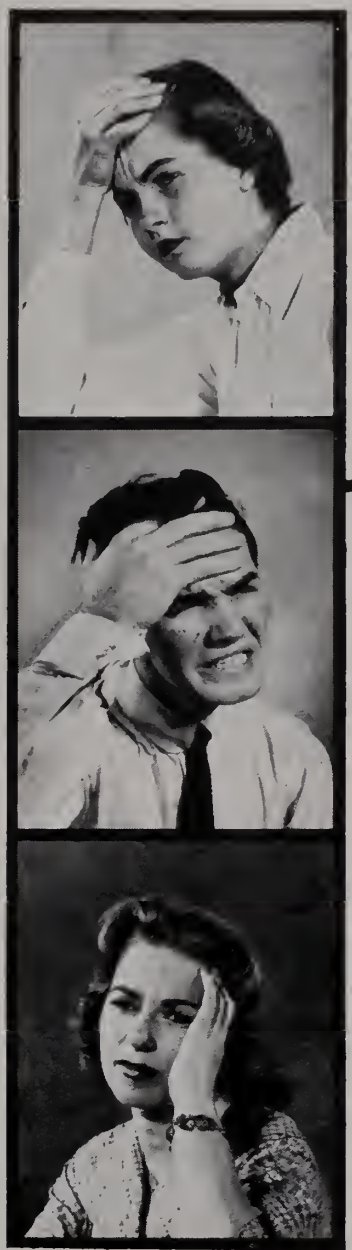
- Zanchol produces a bile low in sediment.
- Zanchol enhances the abstergent quality of bile.
- Zanchol produces a deep, brilliant green bile, regardless of its original color, suggesting improved hepatic function.
- Zanchol improves the flow and quantity of bile without increasing total bile solids.

Bile with these qualities minimizes biliary stasis, reduces sediment and debris in the bile ducts and discourages the ascent of infection.

For these reasons ZANCHOL has shown itself to be a highly valuable agent in chronic cholecystitis, cholangitis and care of patients following cholecystectomy.

Administration: One tablet three or four times a day. Zanchol is supplied in tablets of 250 mg. each. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE



NOW...

CONTROL VASCULAR AND NON-VASCULAR HEADACHE

WIGRAINE®

FOR VASCULAR HEADACHES

Wigraine provides rapid and complete relief of symptoms of migraine and other vascular headaches with just two tablets (or one rectal suppository) taken at the first sign of an attack.

Formula: Ergotamine tartrate, 1.0 mg.; caffeine, 100.0 mg.; l-belladonna alkaloids, 0.1 mg.; acetophenetidin, 130.0 mg. Wigraine tablets in boxes of 20 and 100. Wigraine Rectal Suppositories in boxes of 12.

MEDACHE

FOR NON-VASCULAR HEADACHES

Medache provides safe analgesic-calmative action for relief of pain, anxiety, and allergic manifestations of tension and other non-vascular headaches.

Formula: Phenyltoloxamine dihydrogen citrate*, 44.0 mg. (equiv. phenyltoloxamine, 25.0 mg.); salicylamide, 150.0 mg.; phenacetin, 150.0 mg.; caffeine, 32.0 mg. In bottles of 100 tablets.

*U.S. Pat. No. 2,703,324

Send for samples and complete descriptive literature.

Organon inc. ORANGE, N. J.



Consistent Gains in Functional Capacity Can Be Achieved with Conservative Therapy

The unemployable arthritic once again may undertake full employment and normal recreation. Patients once confined to the home or wheel chair often find it possible to engage in light work. And even bedridden patients can walk with comfort again. These are the benefits of conservative therapy as demonstrated in long-term studies.[1,2,3] In fact, in these four-year comparative studies of salicylate and cortisone, the corticoid showed no superiority over conservative therapy.

Superior Conservative Therapy Provided by Buffered Pabirin

Buffered Pabirin epitomizes modern, conservative therapy without the serious complications of corticoid therapy. Adrenal atrophy, peptic ulcers, moon-face, hypertension or psychotic reactions, a constant risk whenever corticoids are used,[4-7] will not occur with Buffered Pabirin. Month after month, Buffered Pabirin can be administered with a minimum of problems to patient and physician, and without the side effects common to the use of salicylates alone.

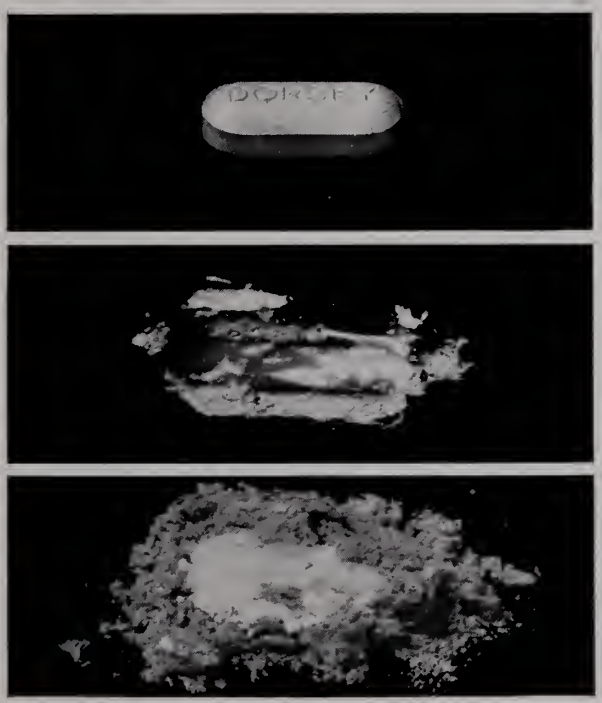


Buffered Pabirin combines new form and formulation for faster pain relief, improved gastric tolerance

Each tablet of Buffered Pabirin consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid and ascorbic acid; an inner core of aspirin. The outer layer quickly releases aluminum hydroxide which affords superior buffering action and protects against gastric irritation. The core of Buffered Pabirin then disintegrates rapidly, permitting fast absorption of acetylsalicylic acid. PABA potentiates the acetylsalicylic acid and creates high salicylate blood levels. Ascorbic acid counteracts vitamin C depletion.

The new form and formulation of Buffered Pabirin provides high and sustained salicylate blood levels. It may be administered over long periods of time without the nausea, dyspepsia or other gastrointestinal symptoms so frequently experienced with salicylates alone.

in osteoarthritis, gouty arthritis, rheumatoid arthritis, bursitis, fibrositis, or tendinitis



Photographs show 2-stage Tandem Release disintegration

Buffered **Pabirin**® *Tablets*

Each tablet contains:

Acetylsalicylic acid (5 gr.) . . . . . 300 mg.
Para-aminobenzoic acid (5 gr.) . . . . . 300 mg.
Ascorbic acid . . . . . 50 mg.
Dried aluminum hydroxide gel . . . . . 100 mg.

All Buffered Pabirin is sodium and potassium free

Dosage: Two or three tablets 3—4 times daily.

References: 1. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (May 29) 1223-1227, 1954. 2. ibid. (April 13) 847-850, 1957. 3. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 4. Lewis, L., *et al.*: Ann. Int. Med. *39*:116, 1953. 5. Demartini, F., *et al.*: J.A.M.A. *158*:1505, 1955. 6. Segaloff, A.: Ann. Allergy *12*:565, 1954. 7. Kern, R. A.: Am. J. M. Sc. *233*:430, 1957.

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which patients with noncalculous gallbladder disease should undergo surgery?

Essentially those who are not relieved by a prolonged trial period of medical management.
Source—Lichtenstein, M. E.: GP *16*:114 (Oct.) 1957.

for medical, preoperative, postoperative management of biliary disorders

"therapeutic bile"

DECHOLIN® and DECHOLIN SODIUM®

corrects biliary stasis

Hydrocholeresis with DECHOLIN produces abundant, thin, free-flowing, therapeutic bile. This flushes thickened bile, mucous plugs and debris from the biliary tract.

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CLINICAL BRIEFS FOR MODERN PRACTICE

For Speedier Return to Normal Nutrition

Meat...

for Well-Tolerated Protein In Infectious Hepatitis

A well-balanced, liberal diet—high in protein and calories, but moderate in fat—appears to shorten convalescence in uncomplicated infectious hepatitis.* Current opinion recommends that the patient be encouraged to consume between 1.5 and 2 grams of protein and 40 to 45 calories per kilogram of body weight daily.

Meat functions in several important ways in the dietary management of infectious hepatitis. It supplies large amounts of well-tolerated protein, and it makes meals attractive and appetizing, an inducement to adequate eating in the presence of anorexia.

During the initial stage, when the appetite is especially poor, one of the most acceptable sources of high quality protein is *broiled* ground lean beef. One authority* recommends broiled ground beef three times daily. (Each 3.5 ounces supplies approximately 30 grams of protein.) With the recovery of appetite, other attractively prepared meats also are served.

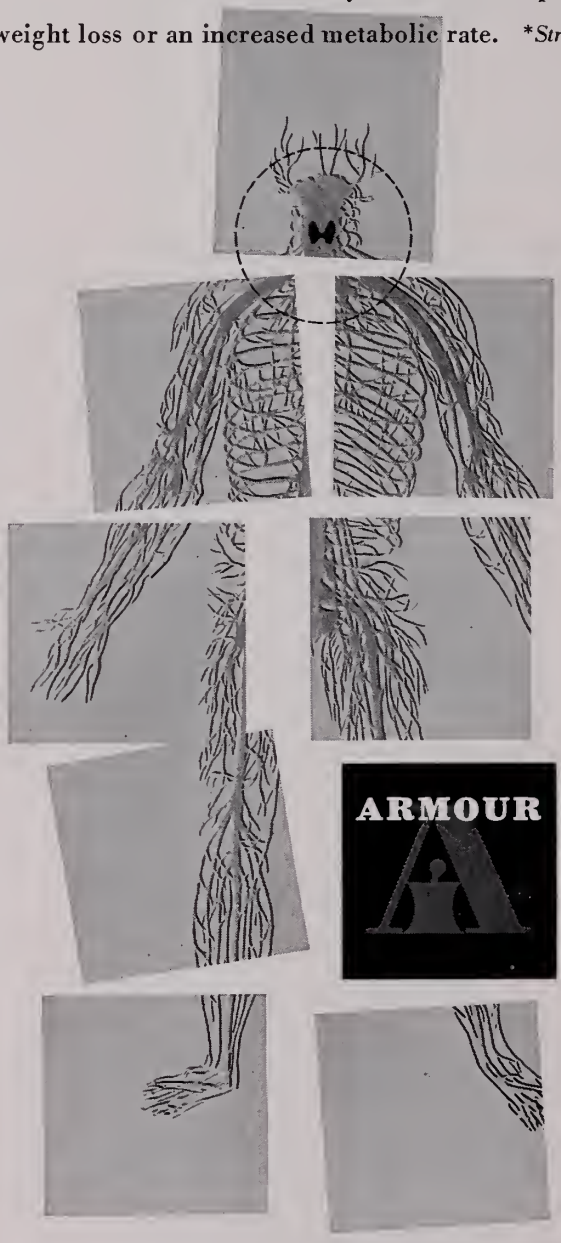
Meat also helps assure an adequate intake of B vitamins, as well as iron, phosphorus, potassium, and magnesium.

*Kark, R. M.: Nutritional Aspects of Liver Disease in Man, in Wohl, M. G., and Goodhart, R. S.: Modern Nutrition in Health and Disease, Philadelphia, Lea & Febiger, 1955, pp. 597-606.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
Main Office, Chicago...Members Throughout the United States

Serum lipids and thyroid medication Recognition of the significant relation between serum lipids and atherosclerosis has resulted in a new interest in the role of hormones in this picture. Desiccated thyroid may reduce serum lipid levels remarkably in many patients without appreciable weight change, as reported by Strisower and co-workers.* Daily dosage ranged approximately from 3 to 5 grains. The authors conclude that treatment with desiccated thyroid need not produce adverse effects such as undesired weight loss or an increased metabolic rate. **Strisower, B., et al.: Lancet 1:120, 1957.*



ARMOUR thyroid

unsurpassed in quality / for consistent response / full potency up to 17 years of storage

SPECIFY
ARMOUR THYROID
in 1/4, 1/2, 1, 2 and 5 grain strengths

THE ARMOUR LABORATORIES A DIVISION OF ARMOUR AND COMPANY • KANKAKEE, ILLINOIS



Hospital practice of infant feeding

Standard formulas for FEEDING REGULATION

Underfeeding is a common cause when infants fail to gain and thrive. In the earliest stage, when caloric intake is inadequate, the infant cries after feeding, remains constipated, and the restlessness from hunger is mistaken for colic. A changed or weakened formula appears to be indicated.

But clinical studies show that a young infant requires a formula of 2 ounces of whole milk (40 calories), a teaspoon of Karo Syrup (15 calories), and a half-ounce of added water *per pound of body weight per day*. Of the total calories, a successful formula yields about 15-20% in protein, 50-60% in carbohydrate, and 25-35% in fat. Whole milk must be reinforced by adding 5% to 10% carbohydrate (1) to provide protein-sparing effect which permits protein anabolism instead of energy production; (2) sufficient calories for tissue formation; (3) proper utilization of fat; (4) suitable acid-base relationships in the intestinal tract and (5) adequate weight gains.

WHOLE MILK FORMULAS

Age Months	Whole Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812

ADVANTAGES OF KARO® SYRUP IN INFANT FEEDING

Composition: Karo Syrup is a superior dextrin-maltose-dextrose mixture because the dextrins are non-fermentable and the maltose is rapidly transformed into dextrose which requires no digestion.



Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

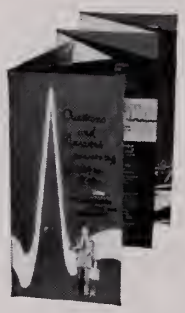
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ANSWERING DOCTORS' QUESTIONS . . .

about the SANBORN Model 300 Visette electrocardiograph



The text and pictures in this new 12-page booklet tell the story of the Sanborn Visette ECG in a unique way: *as answers to actual questions asked by hundreds of doctors* — at medical conventions, in correspondence, in conversations with Sanborn people. Many of these questions are probably ones you might also ask, to get a clear picture of just how a Visette might fit into *your own* practice and diagnostic procedures. Here are facts *you* can use, presented from the *doctor's* point of view.

On simplicity and ease of Visette operation, for example, the booklet pictures and describes such features as *automatic* stylus stabilization, as leads are switched; *pushbutton* grounding; *automatic* shut-off when the cover is closed; *quick, jam-proof* paper loading, in seconds. And graphic proof of *true portability* — that allows you to take a Visette on any call — is dramatically illustrated by the Visette's 18 pound weight and "brief case" size. Your nurse or technician can carry a Visette as easily as a portable typewriter, and this modern 'cardiograph takes the same space on her desk as a letterhead!

Your colleagues' questions — answered by those who designed and built this first truly portable ECG — can have special value to you. Send for your copy of this useful booklet now. And when you would like a Visette demonstration in your own office, or details of the no-obligation, 15-day Trial Plan, call the Sanborn representative in your area.

The familiar Model 51 Viso Cardiette—in use today throughout the world—is available as always. This larger, heavier (34 lb.) instrument is the "office standard" in thousands of practices. Price $785 delivered.



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fast

welcome relief of spasm and pain is continuously reported in functional G-I disorders, such as irritable, spastic colon syndrome; peptic ulcer; biliary dyskinesia; pylorospasm; and infant colic.

sure

relief can be expected . . . even in patients where other antispasmodics have failed.[1-3]

direct

dual antispasmodic action is specific to the G-I tract. Spasm pain is relieved by direct relaxation of the smooth muscle and postganglionic parasympathetic nerve blockage.

safe

even in the presence of glaucoma[4] *. . . BENTYL does not increase intraocular tension, produce blurred vision, dry mouth or urinary retention.*

relief of g-i spasm & pain

Bentyl

20 mg. t.i.d. (dicyclomine) Hydrochloride

1. Chamberlain, D. T.: Gastroenterology *17*:224, 1951. 2. Hock, C. W.: J.M.A., Ga. *43*:124, 1951. 3. Derome, L.: Canad. M.A.J. *69*:532, 1953. 4. Cholst, M., Goodstein, S., Berens, C., and Cinotti, A.: J.A.M.A. *166*:1276, 1958.

Merrell
SINCE 1828

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TRADEMARK: "BENTYL"

WHEN YOU TREAT INFECTIONS IN PATIENTS SUCH AS THESE

- debilitated
- elderly
- diabetics
- infants, especially prematures
- those on corticoids
- those who developed moniliasis on previous broad-spectrum therapy
- those on prolonged and/or high antibiotic dosage
- women—especially if pregnant or diabetic

the best broad-spectrum antibiotic to use is

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin) — Sumycin plus Mycostatin

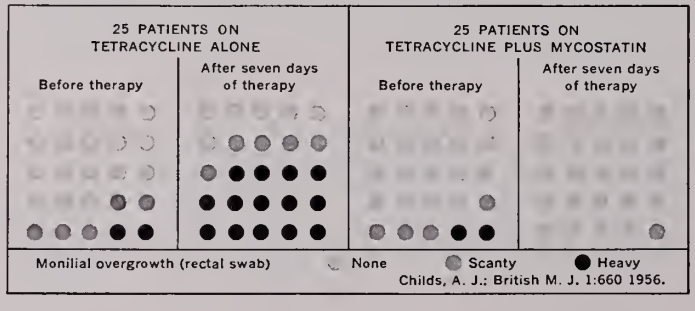
for practical purposes, Mysteclin-V is sodium-free

for "built-in" safety, Mysteclin-V combines:

1. Tetracycline phosphate complex (Sumycin) for superior initial tetracycline blood levels, assuring fast transport of adequate tetracycline to the infection site.

2. Mycostatin—the first safe antifungal antibiotic—for its specific antimonilial activity. Mycostatin protects many patients (see above) who are particularly prone to monilial complications when on broad-spectrum therapy.

MYSTECLIN-V PREVENTS MONILIAL OVERGROWTH



Childs, A. J.: British M. J. 1:660 1956.

Capsules (250 mg./250,000 u.), bottles of 16 and 100. *Half-Strength Capsules* (125 mg./125,000 u.), bottles of 16 and 100. *Suspension* (125 mg./125,000 u.), 2 oz. bottles. *Pediatric Drops* (100 mg./100,000 u.), 10 cc. dropper bottles.

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Squibb Quality—the Priceless Ingredient

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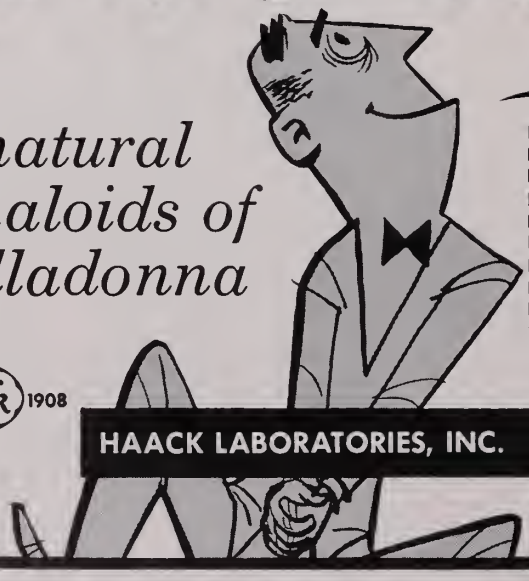
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antispasmodic and sedative

REFER TO PDR
Page 667

natural alkaloids of belladonna



BELAP 0 Formula
Belladanna Extract . . . . . 1/8 gr.*
Phenabarbital . . . . . 1/4 gr.
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Belladanna Extract . . . . . 1/8 gr.*
Phenabarbital . . . . . 1/4 gr.
BELAP 2 (Scored) Formula
Belladanna Extract . . . . . 1/8 gr.*
Phenabarbital . . . . . 1/2 gr.
*Equivalent 5 minims Tinct. Belladanna, USP.
Average adult dasage:
1 ta 3 tablets 3 ar 4 times per day.

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NEW DRUGS

Monthly report on most recent introductions by the pharmaceutical industry.

Rubramin PC Inj. (Squibb).
Pure cyanocobalamin, vitamin B-12. Hematogenic, specific for pernicious anemia; effective in certain megaloblastic anemias; and for a variety of neurological, liver and skin disorders.

Protalba Tablets (Pitman-Moore).
Pure protoveratrine-A, single alkaloid of veratrum; hypotensive. Also available—Protalba-R, combining protoveratrine-A with reserpine.

Ilopan-Choline Tablets (Warren-Teed).
Treatment of gaseous abdominal distension in the postoperative and ambulatory patient.

Sumycin Aqueous Drops & Syrup (Squibb).
Tetracycline, phosphate potentiated, in aqueous formulations; both drop-dosage and syrup available.

R-Gene (Cutter).
IV solution of L-arginine monohydrochloride in water; treatment of hepatic coma resulting from failure of liver function.

Pagano-Levin Medium (Squibb).
Nutrient agar for office use; for differentiation of *Candida (Monilia) albicans* from most other *Candida* species, saprophytic yeasts and other fungi.

Fibrinogen (Merck Sharp & Dohme)
Human whole blood fraction, fibrinogen; for treatment of hypofibrinogenemia and afibrinogenemia.

Sebulex Shampoo (Westwood).
Medicated shampoo; for dandruff and other seborrheic conditions.

Formatrix Tablets (Ayerst).
Estrogen-androgen combination with vitamin C; for osteoporosis due to menopause, malnutrition, atrophy of disuse or following corticosteroid therapy.

Tarcortin Lotion (Reed & Carnrick).
Hydrocortisone and special coal tar extract; for dermatoses.

Daranide (Merck Sharp & Dohme).
Dichlorphenamide, orally effective carbonic anhydrase inhibitor; for treatment of glaucoma.

Meti-Derm Aerosol w/ Neomycin (Schering).
Prednisolone and neomycin in aerosol spray formulation; for topical management of allergic and inflammatory dermatoses where secondary infection is a factor.

Duografin (Squibb)
X-ray contrast medium; for simultaneous visualization of the renal and biliary tracts.

Compocillin-VK (Abbott).
Potassium penicillin V; to be reconstituted with water to make a palatable oral solution. Prophylaxis against recurrence of rheumatic fever, management of rheumatic carditis, prevention of secondary infection.

Novo-Basic Tablets (Squibb).
High potency B complex with C, for therapeutic maintenance and support; for the convalescent stage of metabolic challenge.

Polaramine Tablets and Repetabs (Schering).
Dextro-chlorpheniramine maleate; treatment of allergic conditions responding to oral antihistamines.

Dextran 12% Solution (Abbott).
Dextran in sterile solution, salt-free and pyrogen free; for IV administration in treatment of nephrosis.

V-Cillin K Pediatric (Lilly).
Penicillin V potassium; for reconstitution to make a palatable oral solution.

Parafon Tablets (McNeil).
Chlorzoxazone and acetaminophen, analgesic-muscle relaxant combination; for musculoskeletal disorders. Also available with prednisolone.

Zactane Tables (Wyeth).
Ethoheptazine citrate; analgesic.

Clusivets Tablets (Ayerst).
Vitamin-mineral combination with trace elements. Comprehensive nutritional formula.

Deltasmyl Tablets (Roussel).
Prednisone with theophylline, ephedrine and phenobarbital; for asthma.

Mi-Cebrin T Tablets (Lilly).
Extended-range vitamin mineral formulation; for convalescents.

Metamine Sustained w/ Reserpine Tablets (Leeming).
Aminotrate phosphate with reserpine, combining coronary vasodilator with hypotensive, in sustained-action tablet. For control of angina pectoris associated with hypertension. Also available as Metamine w/ Butabarbital Sustained, indicated where emotional or nervous tension is a factor.

Dipral Tablets (Haskell).
Dipyrone with salicylamide, PABA and Vitamins B-12 and C. Antirheumatic.

Neosporin Topical Power (Burroughs-Wellcome).
Topical Polymixin B-bacitracin-neomycin; bactericidal.

Sterotril Tablets (Schering).
Prednisone and perphenazine; indicated for steroid-responsive conditions with stress overlay.

Prednis-CVP Capsules (Arlington-Funk).
Prednisolone with citrus bioflavonoid and vitamin C, buffered; anti-inflammatory and anti-allergic with capillary protectant. Also available—Prednyl Tablets; similar formulation with salicylamide added. Antirheumatic.

(Continued on page 1393)

(For more complete information on action, use and dosage, see the latest issue of *Pharmindex* available at your regular prescription pharmacy.)

Component Society Monthly Meetings

OREGON

BENTON COUNTY
Pres, Charles E. Reed, Corvallis
Sec, J N Furst, Corvallis
First Monday—6 30 p m —Benton Hotel, Corvallis

CENTRAL OREGON
Pres, Harry E Mackey, Bend
Sec, Eugene L White, Bend
First Monday—7 30 p m —Pine Tavern, Bend

CLATSOP COUNTY
Pres, William M Burget, Astoria
Sec, Charles K Linehan, Astoria
Meetings irregular

COLUMBIA COUNTY
Pres, Eugene P Tupker, St Helens
Sec, O L Zeschin, St. Helens
No regular schedule—7 p.m —St. Helens

DOUGLAS COUNTY
Pres, Robert R Mooers, Roseburg
Sec, William D Holst, Roseburg
Second Tuesday—6 30 p.m.—Roseburg Country Club

EASTERN OREGON
Pres, Jules F Bittner, Portland
Sec., J. Ralph McDonald, Pendleton
Annual Meeting Only—June—Pendleton

JACKSON COUNTY
Pres, Oscar A Heyerman, Medford
Sec, Earl L. Lawson, Medford
Wednesday—7 p.m.—Rogue Valley Country Club

KLAMATH COUNTY
Pres., William G Holford, Jr., Klamath Falls
Sec, Robert D Payne, Klamath Falls
Second Tuesday—7 p m —Klamath Falls

LANE COUNTY
Pres, Keith D. McMilan, Eugene
Sec, Virgil W. Samms, Eugene
First Tuesday—6.30 p.m.—Eugene Hotel

LINN COUNTY
Pres., H P. O'Neill, Albany
Sec, Robert i Daugherty, Lebanon
First Thursday—6.30 p.m.—Red Hat Cafe, Albany

MID-COLUMBIA
Pres., W. T Edmundson, Hood River
Sec., John M. Campbell, The Dalles
Second Tuesday—6 30 p.m.—Alternate between Hood River & The Dalles

MULTNOMAH COUNTY
Pres., Werner E Zeller, Portland
Sec, Verner V Lindgren, Portland
First Tuesday (Oct., Nov, Dec., Feb., Mar., May)—6 p m —Hotel Multnomah

SOUTHWESTERN OREGON
Pres, Paul E Parker, North Bend
Sec, Douglass S. Johnson, Coos Bay
Third Wednesday—8 p.m.—Coos Country Club

TILLAMOOK COUNTY
Pres, Howard Kaliher, Tillamook
Sec, J P. Brady, Tillamook
Third Friday—7 p.m.—Victory House

UMATILLA COUNTY
Pres, Louis J. Feves, Pendleton
Sec, Donald D. Smith, Pendleton
Third Tuesday—7.30 p.m.—Pendleton Country Club

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Pres, Donald F. Otten, La Grande
Sec., Webster K Ross, La Grande
On call of President

WASHINGTON COUNTY
Pres., Herbert Mason, Beaverton
Sec, N. D. Smith, Beaverton
First Monday—8 p.m.—Forrest Hills Country Club, Cornelius

YAMHILL COUNTY
Pres., Clifford C. Peterson, Newberg
Sec, Louis L. Geary, McMinnville
First Tuesday—7 p.m.—Oriental Garden, McMinnville

WASHINGTON

CHELAN
Pres, Donald Phillips, Wenatchee
Sec, Robert Bonifaci, Wenatchee
Monday—6.30 p.m —Wenatchee Golf & Country Club

CLALLAM
Pres, John Siemens, Port Angeles
Secy, K M Senz, Sequim
Third Monday—8 00 p.m.—Generally Olympic Memorial Hospital, Port Angeles

CLARK
Pres, G W. Turley, Ridgefield
Sec, Emil W Brocking, Camas
Tuesday—7 30 p m.—Royal Oaks Country Club, Vancouver

COWLITZ
Pres, Marion A Clark, Jr, Longview
Sec, Powell B Loggan, Longview
Third Tuesday—7 30 p m —Place not established

GRANT
Pres., R. M. Gill, Moses Lake
Sec, Wayne L. Piper, Ephrata
Second Monday—7:30 p.m.—Moses Lake or Ephrata

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Pres., E L. Calhoun, Aberdeen
Sec, James A. Moore, Montesano
Third Wednesday—6.30 p.m.—Grays Harbor Country Club

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Sec, Clayton M. Schaill, Port Townsend

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Pres, Dean K. Crystal, Seattle
Sec., Hugh W. Jones, Seattle
First Monday—6:30 p.m.—Norselander Hall, Seattle

KITSAP
Pres., E. J. Munns, Bremerton
Sec., J T. Turpin, Bremerton
Second Monday—8 p.m.—Harrison Memorial Hospital, Bremerton

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Pres., A. J. Grose, Ellensburg
Sec., William W. Hicks, Ellensburg
First Tuesday—7:30 p.m.—Ellensburg Golf & Country Club

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Sec., Harland W. Holderby, Goldendale
No regular meetings

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Second Tuesday—8:15 p.m.—Medical Arts Bldg. Auditorium, Tacoma

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Sec., Maynard L. Johnson, Mt. Vernon
Fourth Monday—7 p.m.—Dale's Restaurant, Mt. Vernon

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First Tuesday—7:30 p.m.—Everett Golf & Country Club

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Sec., Joseph B. Finney, Spokane
Second Thursday—7:30 p.m.—Blood Bank Auditorium, Spokane

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Sec., Merle B. Snyder, Chewelah
First Tuesday—8 p.m.—Chewelah and Colville alternately

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Sec., Thomas R. Hazelrigg, Olympia
Fourth Tuesday—Olympia Country and Golf Club

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Sec., John B. Adams, Walla Walla
Second Thursday—6:30 p.m.—Grand Hotel, Walla Walla

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Sec., Donald H. Boettner, Bellingham
First Monday—7 p.m.—Leopold Hotel, Bellingham

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Sec., Stanley R. Durham, Yakima
Second Tuesday—6:30 p.m.—Bennington's Holiday Restaurant, Yakima

IDAHO

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Sec., Allen H. Tigert, Soda Springs
First Friday—7:30 p.m.—Meetings rotate—Preston, Soda Springs and Montpelier

BONNER-BOUNDARY
Pres., Helen Peterson, Sandpoint
Sec., Fred Marineau, Sandpoint
Second Wednesday—12:30 p.m.—Bonner General Hospital, Sandpoint

IDAHO FALLS
Pres., Curtis Waid, Idaho Falls
Sec., James Douglas Davis, Idaho Falls
Second Friday—Every other month—6 p.m.—Bonneville Hotel

KOOTENAI-BENEWAH
Pres., D. Theron Knight, Coeur d'Alene
Sec., E. R. W. Fox, Coeur d'Alene
First Tuesday—6:30 p.m.—Announced in advance of meeting

NORTH IDAHO
Pres., E. J. Baldeck, Lewiston
Sec., Lester Crismon, Lewiston
Third Wednesday—6:30 p.m.—Ballinger Hotel, Lewiston

SOUTH CENTRAL
Pres., Bernard L. Kreilkamp, Twin Falls
Sec., Fred T. Kolouch, Twin Falls
Second Tuesday—7:30 p.m.—Varied

SOUTHEASTERN
Pres., Louis G. Bush, Pocatello
Sec., John E. Comstock, Pocatello
Thursday—7 p.m.—Bannock Hotel, Pocatello

SOUTHWESTERN
Pres., Ralph R. Jones, Boise
Sec., Glenn E. Talboy, Boise
Thursdays—Announced in advance of meeting

UPPER SNAKE RIVER
Pres., W. A. Melcher, Ashton
Sec., B. H. Passey, Rexburg
First Monday—Dinner meeting—7:30 p.m.—Variable—

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*R. C. Batterman & A. J. Grossman: Analgesic effectiveness and safety of N-acetyl-p-aminophenol, Federation Proc. 14; 316-317, March 1955.

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MEETINGS OF MEDICAL SOCIETIES

American Medical Association ..... Atlantic City, June 8-12, 1959

Clinical Meetings
Minneapolis, Dec. 2-5, 1958 — Dallas, Dec. 1-4, 1959

Oregon State Medical Society ..... September 23-25, 1959, Medford
Pres., H. A Dickel, Portland — Sec., M. H. Parratt, Portlond

Washington State Medical Association .... Seot. 13-16, 1959, Seattle
Pres., E. L. Colhoun, Aberdeen — Sec., Wilbur Watson, Seattle

Idaho Stote Medical Association ..... Sun Valley
June 14-17, 1959 — June 15-18, 1960
Pres., D K. Worden, Lewiston — Sec., M. D. Gudmundsen, Boise

Aloska Territorial Medical Association 1959
Pres., H. B. Fote, Foirbonks — Sec., R. B. Wilkins, Anchoroge

Pacific Northwest Obstetricol and Gynecological Association .... Banff
July 20-24, 1959
Pres., A Agnew, Vancouver, B.C. — Sec., C. L. Feorl, Portlond

North Pacific Society of Internal Medicine ..... Seattle
March 21, 1959
Pres., S. G. Kenning, Victorio, B.C. — Sec., J. H. Crompton, Seattle

Pacific Northwest Society of Pathalogists ..... Priest Lake, Idaho
Oct. 3-4, 1958
Pres., H. E. Toylor Voncouver, B.C. — Sec., J. E. Hill, Spokone

OREGON

Oregon Acodemy of General Practice ..... Portland, Oct. 16-17, 1958
Pres., B. L. Trelstod, Solem

Oregon Academy of Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. through May), Henry Thiele's, Portland
Pres., D de Weere, Portland — Sec . P. Myer, Portland

Oregon Dermatologic Society ..... Portland, Second Wednesdoy (Nov., Jan.-Apr.)
Pres., T. S. Sounders, Portlond — Sec., L. F. Roy, Portlond

Oregon Pathologists Association—Second Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., H. Harris, Portlond — Sec., J. H. Lium, Portlond

Oregon Radiologicol Society—Second Wednesday through school year—University Club, Portland
Pres., J. W. Loomis, Portland — Sec., C. V. Allen, Portlond

Oregon State Society of Anesthesialogists ..... Portlond, Third Friday (except June, July, Aug.)
Pres., C. H. Hagmeier, Portlond — Sec., D. P. Dobson, Beovertan

Portland Academy of Hypnosis ..... Third Monday (Sept.-Moy)
Pres., D. Steffonoff — Sec., H. Clogett Harding

Portland Academy of Pediatrics ..... First Monday
Pres., J. P. Whittemore — Sec., L. H. Smith

WASHINGTON

Puget Sound Academy of Ophthalmology and Otoloryngology — Third Tuesday (Oct.-May)—Seattle or Tocoma
Pres., E. G. Darlond, Seottle — Sec., J. L. Horgiss, Seottle

Puyallup Volley Surgical Society ..... Fourth Tuesday (Sept.-May)
Pres., K H. Sturdevont, Puyollup — Sec., V. M. Murphy, Sumner

Seattle Academy of Surgery ..... Nov. 20, 1958
Third Friday, Sept., Nov., Jan., Mar.
Pres., L. M. Penny — Sec., D. D. Corlett

Seattle Gynecalogicol Society ..... Third Wednesday (except June, July, Aug., Dec., Feb.)
Pres., P. G. Petersan — Sec., L. B. Danoldsan

Seattle Pediatric Society ..... Third Friday (Sept.-May), College Club
Pres., Poul Betzold — Sec., C. Razgay

Seottle Surgical Society ..... Jan. 30-31, 1959
Fourth Monday, Sept.-Moy
Pres., W. E. Wotsan — Sec., W. O. Mills

Spokane Academy of General Practice ..... Dec. 6, 1958
Pres., D. W. McKinlay — Sec., R. H. Gonz

Spokane Society of Internal Medicine ..... April 10, 1959
Pres., O. C. Olson — Sec., R. P. Porker

Spokone Surgical Society ..... April 11, 1959
Pres., R. H. Humphreys — Sec., E. B. Coulter

Tacoma Acodemy of Internal Medicine ..... March 14, 1959
Pres., R. E. Lone — Sec., R. F. Borronion

Tacoma Surgical Club ..... Moy 2, 1959
Pres., M. L. Johnson — Sec., R. W. Osborne

Washingtan Acodemy of General Practice, Longview, May 10-12, 1959
Pres., D. Fritz, Cothlomet — Sec., J. E. Gohringer, Jr., Wenatchee

Washington State Obstetrical Association .... Spokane, Oct. 11, 1958
Pres., G. G. Rice, Seattle — Sec., D. M. McIntyre, Seottle

Woshington State Radiological Society ..... Seattle
Fourth Monday of each month, Sept. through Moy
Pres., R. Kiltz, Everett — Sec., W. A. Chesledon, Seottle

Washington State Society of Anesthesiologists ..... Fourth Friday (Sept.-Moy)
Pres., W. H. Prott, Tocoma — Sec., L. G. Marley, Tocomo

Washington State Society of Internal Medicine Oct. 16, 1958, Seattle
Pres., J. W. Skinner, Yokima — Sec., W. Spickord, Seottle

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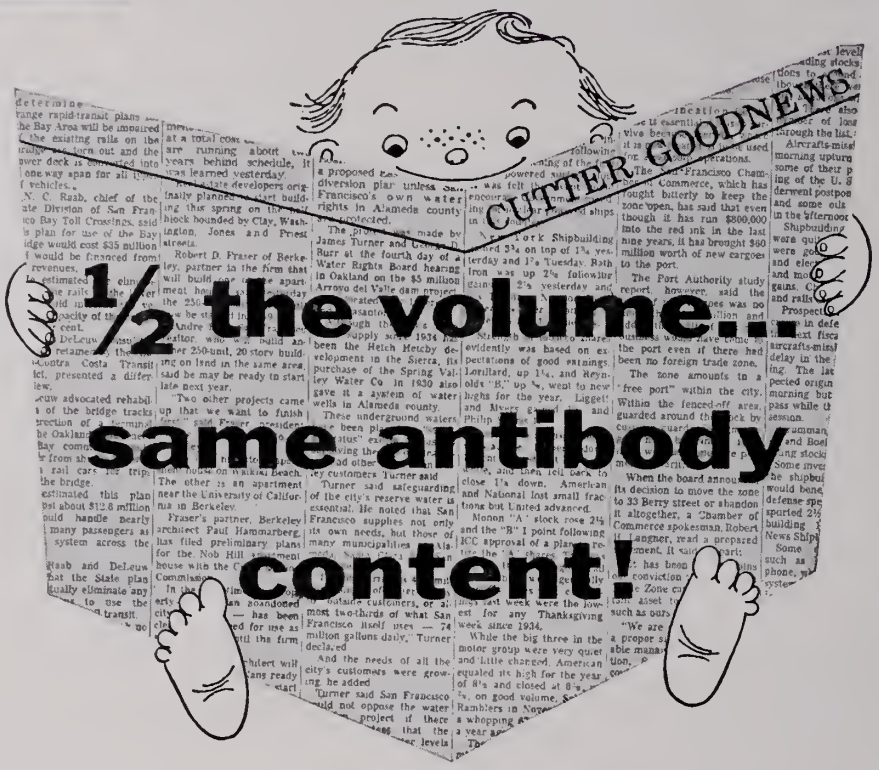
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NOVEMBER, 1958

NORTHWEST MEDICINE



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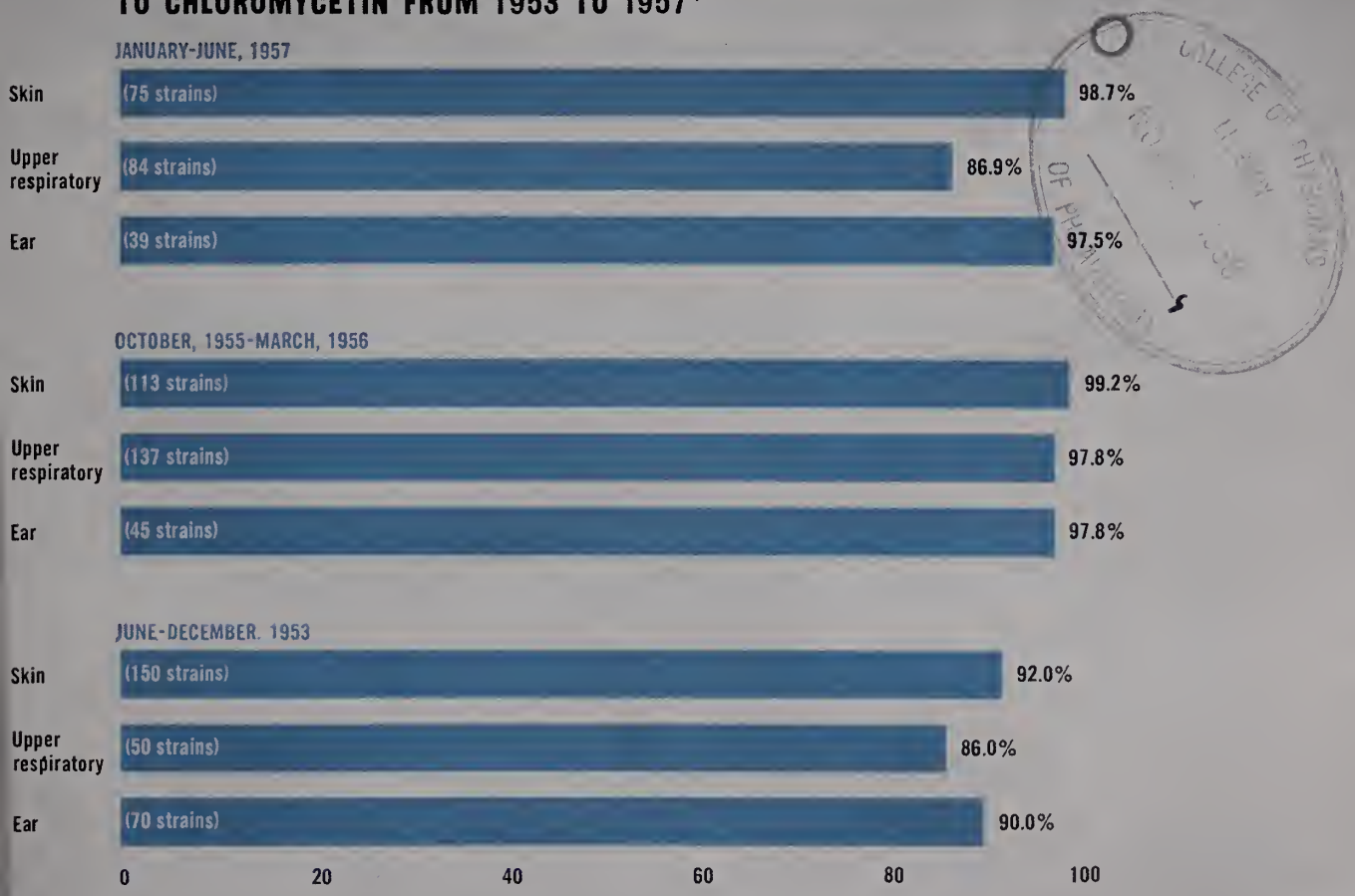
REFERENCES: (1) Royer, A., in Welch, H., & Martí-Ibañez, F.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 783. (2) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 101:397, 1958. (3) Koch, R., & Donnell, G.: *California Med.* 87:313, 1957. (4) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M. A. J.* 77:844, 1957. (5) Cooper, M. L., & Keller, H. M.: *J. Dis. Child.* 95:245, 1958. (6) Caswell, H. T., *et al.*: *Surg., Gynec. & Obst.* 106:1, 1958. (7) Brown, J. V.; Sedwitz, J. L., & Hanner, J. M.: *U. S. Armed Forces M. J.*: 9:161, 1958. (8) Sarason, E. L., & Bauman, S.: *Surg., Gynec. & Obst.* 105:224, 1957.

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SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

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▲Deprol▲†

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Deprol is unlike amine-oxidase inhibitors

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Composition: Each tablet contains 400 mg. meprobamate and 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl).

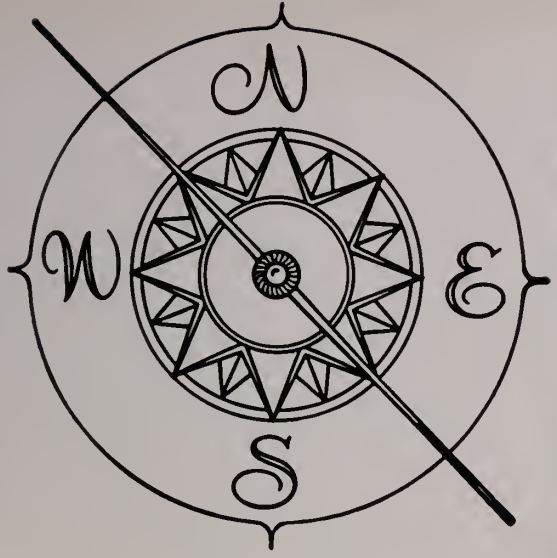
Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

†Trade-mark

CO-7469

Literature and samples on request WALLACE LABORATORIES, *New Brunswick, N.J.*



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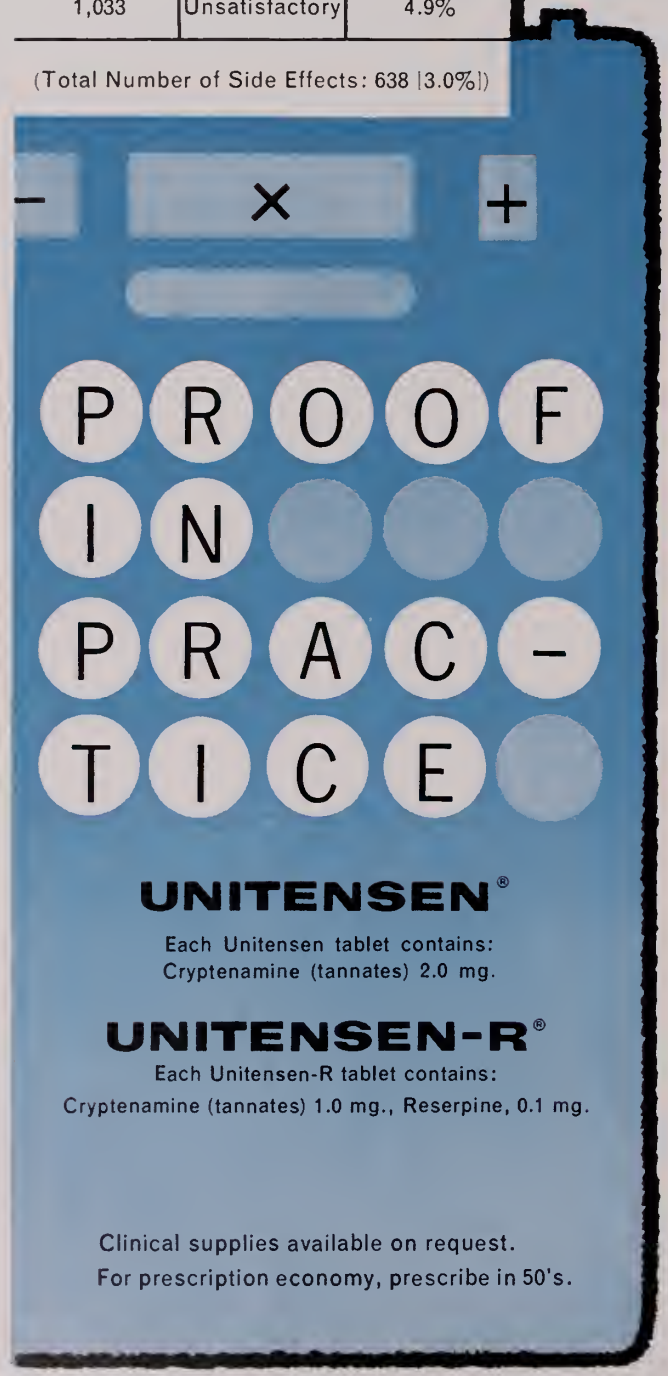
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SUMMARY OF REPORTS

No. of Patients	Results	Percent
6,553	Excellent	31.0%
10,843	Good	51.3%
2,703	Fair	12.8%
1,033	Unsatisfactory	4.9%

(Total Number of Side Effects: 638 [3.0%])



UNITENSEN®

Each Unitensen tablet contains:
Cryptenamine (tannates) 2.0 mg.

UNITENSEN-R®

Each Unitensen-R tablet contains:
Cryptenamine (tannates) 1.0 mg., Reserpine, 0.1 mg.

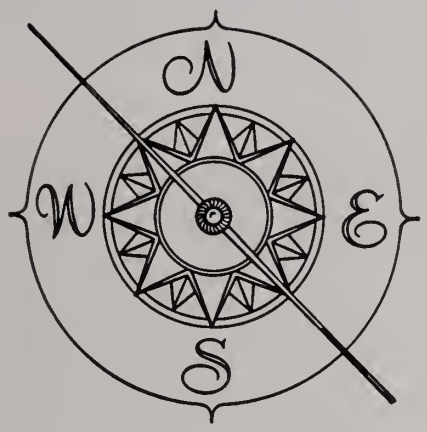
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This data deals with the results obtained by 1,988 physicians, treating 21,128 hypertensive patients with Unitensen. The "Proof In Practice" study validates, *in day-to-day private practice*, the findings of clinical trials conducted in hospitals and institutions. It proves that Unitensen affords safe, dependable office management for the majority of hypertensive patients. Unitensen lowers blood pressure . . . improves cerebral and renal blood flow... exerts no adverse effects on circulation . . . and, is virtually free of side effects.

Neisler

Irwin, Neisler & Co.
Decatur, Illinois



NORTHWEST MEDICINE

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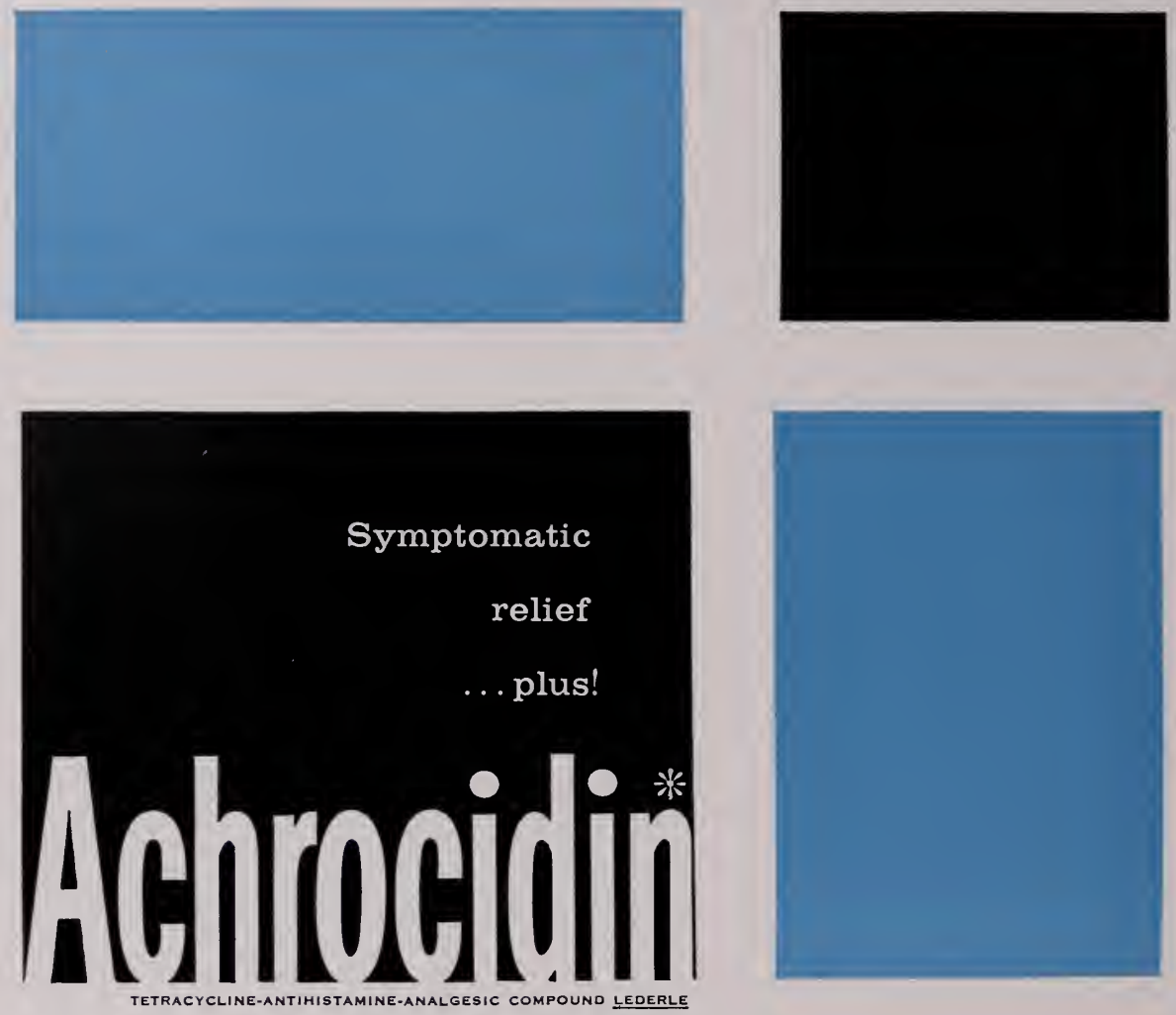
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pneumonitis

adenitis

sinusitis

otitis

bronchitis

COMBINES: Traditional components for relief of the annoying symptoms of early upper respiratory infections...

PLUS: Protection against bacterial complications often associated with such conditions.

TABLETS (sugar coated)
Each contains:

ACHROMYCIN* Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottles of 24 and 100.

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Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 fl. oz.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children adjusted according to age and weight.
Available on prescription only.

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*Reg. U. S. Pat. Off.

fast

welcome relief of spasm and pain is continuously reported in functional G-I disorders, such as irritable, spastic colon syndrome; peptic ulcer; biliary dyskinesia; pylorospasm; and infant colic.

sure

relief can be expected . . . even in patients where other antispasmodics have failed.[1-3]

direct

dual antispasmodic action is specific to the G-I tract. Spasm pain is relieved by direct relaxation of the smooth muscle and postganglionic parasympathetic nerve blockage.

safe

even in the presence of glaucoma[4] *. . . BENTYL does not increase intraocular tension, produce blurred vision, dry mouth or urinary retention.*

relief of g-i spasm & pain

Bentyl

20 mg. t.i.d. (dicyclomine) Hydrochloride

1. Chamberlain, D. T.: Gastroenterology *17*:224, 1951. 2. Hock, C. W.: J.M.A., Ga. *43*:124, 1951. 3. Derome, L.: Canad. M.A.J. *69*:532, 1953. 4. Cholst, M., Goodstein, S., Berens, C., and Cinotti, A.: J.A.M.A. *166*:1276, 1958.

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TRADEMARK: "BENTYL"

In potentially-serious infections...

*TRADEMARK, REG. U. S. PAT. OFF.

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†TRADEMARK, REG. U. S. PAT. OFF.—THE UPJOHN BRAND OF TETRACYCLINE

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The Upjohn Company, Kalamazoo, Michigan

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Make new Panalba*

(PANmycin† Phosphate plus ALBAmycin**)

your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.

Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Panmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride .....250 mg.
Albamycin (as novobiocin sodium)...125 mg.

2. Panalba KM †† Flavored Granules. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains:

Panmycin (tetracycline) equivalent to tetracycline hydrochloride .....125 mg.
Albamycin (as novobiocin calcium)..62.5 mg.
Potassium metaphosphate .....100 mg.

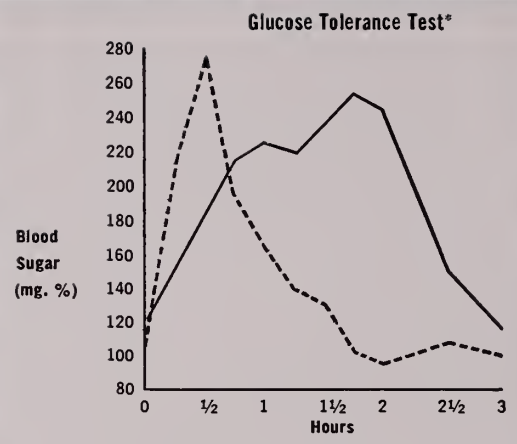
Dosage:

Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.

Panalba KM Granules
For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 30 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

AN AMES CLINIQUICK[T.M.]

CLINICAL BRIEFS
FOR MODERN PRACTICE



*Constam, G. R.: Northwest Med. 56:919, 1957.

besides diabetes, what diseases may cause symptoms of polyuria, polydipsia, increased fatigability and loss of weight?

Various renal diseases with isosthenuria, portal obstruction, functional dipsomania, hyperparathyroidism, acromegaly, primary aldosteronism, chronic mercury poisoning, hypervitaminoses A or D, Hand-Schüller-Christian lipoidosis, fructosuria, pentosuria and sucrosuria.*

COLOR-CALIBRATED CLINITEST® BRAND *Reagent Tablets*

the STANDARDIZED urine-sugar test for reliable quantitative estimations

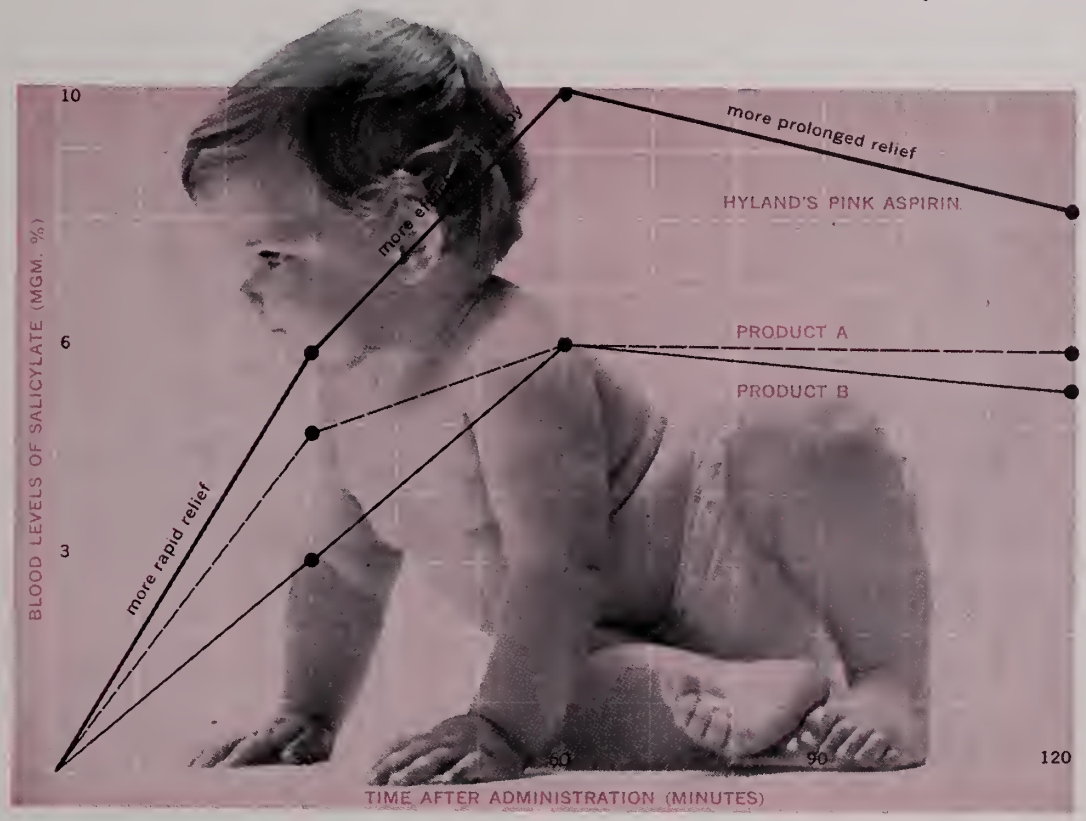
- full color calibration, clear-cut color changes
- established "plus" system covers entire critical range
- standard blue-to-orange spectrum long familiar to diabetics
- unvarying, laboratory-controlled color scale

AMES COMPANY, INC · ELKHART, INDIANA
Ames Company of Canada, Ltd., Toronto

46858

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Gives 27-56% higher blood levels of salicylate



THE ONLY ASPIRIN FORMULATED ESPECIALLY FOR INFANTS

In a recent test of three "infants' & children's" aspirin tablets*...results conclusively showed that Hyland's Pink Aspirin for Children produced blood levels of salicylate 27-56% higher than the other brands. • Here's why: Hyland's Pink Aspirin for Children is the only Triturate. Triturates, often used for injection, are absorbed more quickly...safely. Hyland's contains no starch or binder ...ingredients used in compressed tablets which retard assimilation. Controlled dosage for any age—no inaccurate breaking of adult-type tablets. • No "emotional trauma" for your infant patients...specify Hyland's Pink Aspirin for Children (they love the raspberry flavor)...the Triturate tablet that's specially formulated for them! *detailed report sent on request



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Specialists in fine pharmaceuticals for children for over half a century.

THE JOURNAL
OF THE
American Medical Association

J.A.M.A. *167*:433, 1958

STUDY OF
levo-1-phenyl-2-aminopropane alginate
LEVONOR, NEW ANORECTIC

RESULTS WITH LEVONOR

in a series of overweight patients (abstracted from a report in J.A.M.A. *167*:433, 1958)—LEVONOR was given to 80 patients as 5 mg. tablets, three times a day, one-half hour before meals. Many cases received an added dose at 8 or 9 p.m. to curb "television" or "before bedtime" snacks. *There were no signs of restlessness from this late-dosage schedule.* Many patients had previously been on stimulant type drugs with diet and had limited success. They were enthusiastic about control of appetite and relative lack of side effects (with LEVONOR). Patients were seen on an average of every two weeks. The average weekly weight-loss for patients taking LEVONOR was 2.0 pounds. There was a *remarkable absence of any serious side effects.* Since the studies revealed *no effects on blood sugar levels, nor on central vasomotor reflexes,* the new agent was *used in diabetes mellitus, hypertension* and *obstetrics.*

IN OBESITY

1 **a distinctly different appetite suppressant with virtually no analepsis**[1,2,6]

2 **even for "night eaters"—8 p.m. or later dosage cuts appetite without keeping patients awake**[1-3]

3 **and for weight reduction in hypertension (especially when controlled with rauwolfia),**[4] **diabetes**[5] **and pregnancy**[5]

FROM NEW PAPERS COMING UP!

... a highly effective adjunct to the reducing regimen ... unaccompanied by CNS overstimulation and other side effects associated with stimulant type drugs.

Feldman, H. S.: in press, 1958

... An average weekly weight loss of 2.8 pounds produced by an average daily dose of 3 or 4 tablets. No increase in blood pressure or pulse rate was noted.

Frohman, I. P.: in press, 1958

...Forty-one overweight patients on LEVONOR, ranging in age from 28 to 68 years, undergoing antihypertensive therapy that included rauwolfia derivatives, experienced excellent weight loss at the same time that their hypertension was controlled. This despite the well-known tendency of rauwolfia therapy to cause weight gain. Marked lack of CNS stimulation was observed.

Feldman, H. S., and Gadek, R. J.: in press, 1958

FROM THE SCIENTIFIC EXHIBIT

(A.M.A. Clinical Meeting, Dec. 3-6, 1957, Phila.)

...with some patients losing as much as 6 pounds a week, LEVONOR, in a series of 80 patients, *achieved an average loss of 2-2½ pounds per week* by patients on a daily dosage of 1 tablet at 11:00 a.m., 1 at 4:00 p.m., and 1 at 8:00 p.m.

...effectively combated nighttime eating syndrome without disturbing sleep...

...produced *none of the side effects* usually associated with appetite suppressants.

THREE TYPICAL CASE HISTORIES*

Case 1:—A 15-year-old girl, overfed during an appendectomy convalescence, then overate and underexercised, gained 42 lbs., and weighed 165 lbs. After previous reducing attempts failed, dietary re-education and therapy with LEVONOR lost her 24.5 lbs. in 11 weeks, with improvement continuing.

Case 2:—A 48-year-old male's frequent business meals and physical inactivity caused him to gain 28 lbs. in 12 years. With LEVONOR, he was able to follow his regimen and—as advised—not to mention it at meals and thus elicit no comment. In 10 weeks he lost 24 lbs. and has maintained the pattern.

Case 3:—A 44-year-old male found his "timed-release" appetite suppressant unusable for control of nighttime craving. 1 LEVONOR tablet daily at 7 p.m. allayed evening hunger and permitted restriction of caloric intake without emotional disturbance or sleeplessness.

*J.A.M.A. *167*:433, 1958

WEIGHT LOSS WITHOUT SLEEP LOSS[1-3]

LEVONOR®*



2-2½ lbs.
loss per week

6,600[1-8]
clinical cases

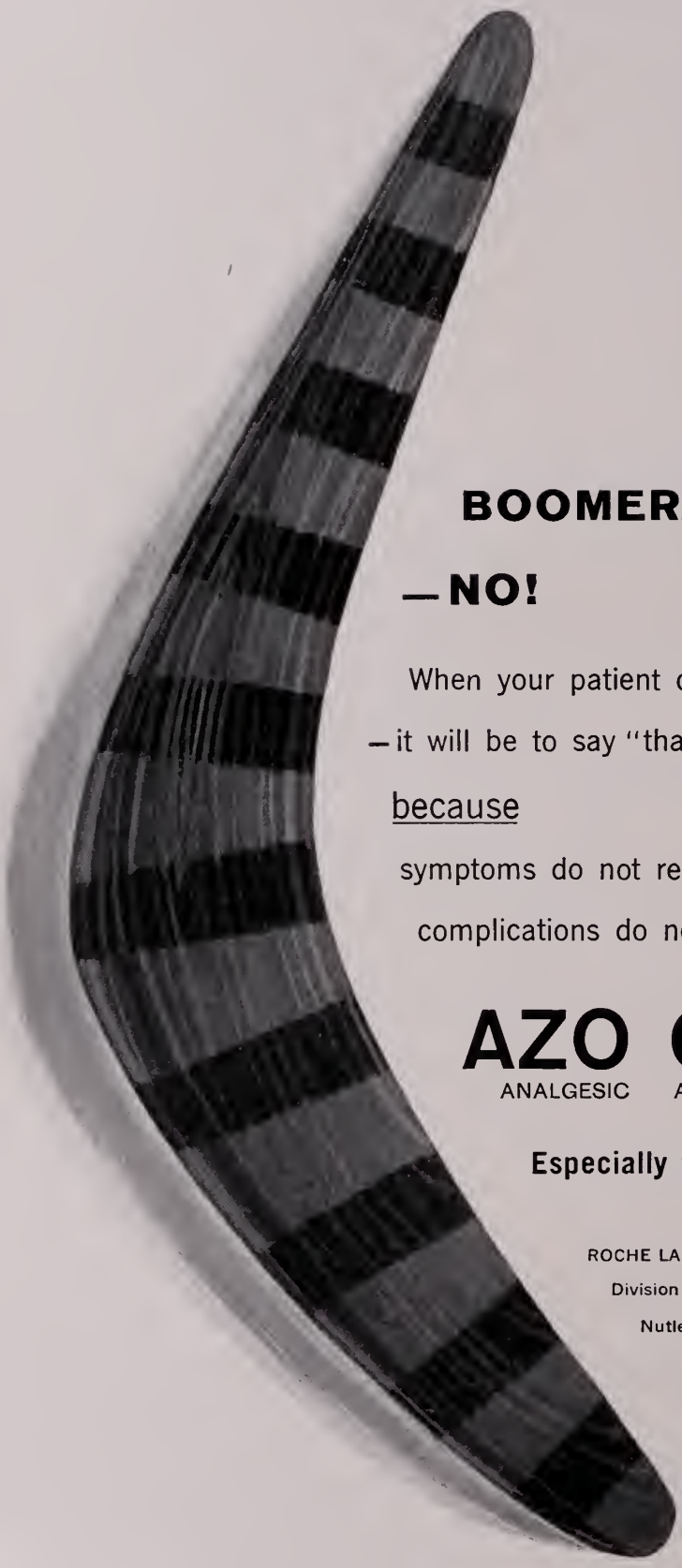
Administration and dosage—Average dose: 5 to 10 mg. twice or three times daily, as indicated. Under proper supervision, LEVONOR can be given to obstetrical and pediatric patients as well as those with moderate cardiovascular disease, hypertension or diabetes. LEVONOR should not be given to patients with severe hypertension, thyrotoxicosis or acute coronary disease. Many physicians prefer their patients to take 1 tablet at 11 a.m., 1 tablet at 4 p.m. and 1 tablet at 8 p.m.

Packaging—Bottles of 100 tablets. Each tablet contains 5 mg. of levo amphetamine alginate (levo-1-phenyl-2-aminopropane alginate, Nordson)

Bibliography: 1. Gadek, R. J.; et al.: J.A.M.A. *167*:433, 1958. 2. Feldman, H. S.: In press, 1958. 3. Gosselin, R. A. (Office Practice Study: 902 physicians): to be published. 4. Feldman, H. S., and Gadek, R. J.: In Press, 1958. 5. Gadek, R. J.; Feldman, H. S.; Lucariello, R. J.: Scientific Exhibit, A.M.A. Meeting, December, 1957. 6. Frohman, I. P.: In press, 1958. 7. Pomeranze, J.: Personal Communication, 1958. 8. Berkowitz, D.: Personal Communication, 1958.

*BRAND OF LEVO AMPHETAMINE ALGINATE (LEVO-1-PHENYL-2-AMINOPROPANE ALGINATE, NORDSON) PAT. PENDING

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(formerly Nordmark)



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—NO!

When your patient calls again

—it will be to say "thanks"

<u>because</u>

symptoms do not recur—

complications do not supervene

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ANALGESIC ANTIBACTERIAL

Especially for urinary tract infections

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for colds of every description

one inclusive prescription

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Each CORICIDIN FORTE Capsule provides
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(chlorprophenpyridamine maleate) ..... 4 mg.
Salicylamide ..... 0.19 Gm.
Phenacetin ..... 0.13 Gm.
Caffeine ..... 30 mg.
Ascorbic acid ..... 50 mg.
Methamphetamine hydrochloride ..... 1.25 mg.

Dosage—1 capsule q. 4-6.

Supplied—Bottles of 100 and 1000.

Schering

SCHERING CORPORATION · BLOOMFIELD, NEW JERSEY

CR-J-3118



Consistent Gains in Functional Capacity Can Be Achieved with Conservative Therapy

The unemployable arthritic once again may undertake full employment and normal recreation. Patients once confined to the home or wheel chair often find it possible to engage in light work. And even bedridden patients can walk with comfort again. These are the benefits of conservative therapy as demonstrated in long-term studies.[1,2,3] In fact, in these four-year comparative studies of salicylate and cortisone, the corticoid showed no superiority over conservative therapy.

Superior Conservative Therapy Provided by Buffered Pabirin

Buffered Pabirin epitomizes modern, conservative therapy without the serious complications of corticoid therapy. Adrenal atrophy, peptic ulcers, moon-face, hypertension or psychotic reactions, a constant risk whenever corticoids are used,[4-7] will not occur with Buffered Pabirin. Month after month, Buffered Pabirin can be administered with a minimum of problems to patient and physician, and without the side effects common to the use of salicylates alone.

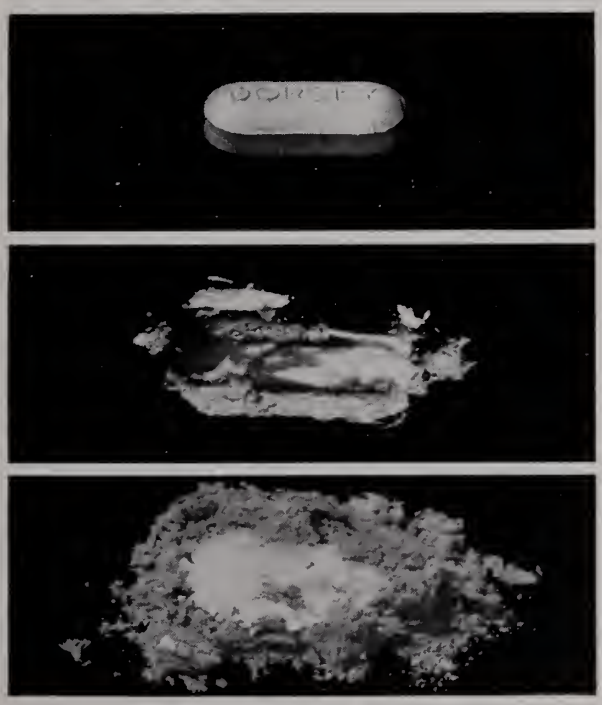


Buffered Pabirin combines new form and formulation for faster pain relief, improved gastric tolerance

Each tablet of Buffered Pabirin consists of an outer layer containing a buffer (aluminum hydroxide), para-aminobenzoic acid and ascorbic acid; an inner core of aspirin. The outer layer quickly releases aluminum hydroxide which affords superior buffering action and protects against gastric irritation. The core of Buffered Pabirin then disintegrates rapidly, permitting fast absorption of acetylsalicylic acid. PABA potentiates the acetylsalicylic acid and creates high salicylate blood levels. Ascorbic acid counteracts vitamin C depletion.

The new form and formulation of Buffered Pabirin provides high and sustained salicylate blood levels. It may be administered over long periods of time without the nausea, dyspepsia or other gastrointestinal symptoms so frequently experienced with salicylates alone.

in osteoarthritis, gouty arthritis, rheumatoid arthritis, bursitis, fibrositis, or tendinitis



Photographs show 2-stage Tandem Release disintegration

Buffered Pabirin® *Tablets*

Each tablet contains:

Acetylsalicylic acid (5 gr.) . . . . . 300 mg.
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References: 1. Report of Joint Committee, Medical Research Council & Nuffield Foundation, Treatment of Rheumatoid Arthritis, British Medical Journal (May 29) 1223-1227, 1954. 2. ibid. (April 13) 847-850, 1957. 3. Hart, D.; Bagnall, A. W.; Bunim, J. J., and Polley, F. H.: Ninth International Congress on Rheumatic Diseases, Toronto, Ont. (June 25) 1957. 4. Lewis, L., *et al.*: Ann. Int. Med. *39*:116, 1953. 5. Demartini, F., *et al.*: J.A.M.A. *158*:1505, 1955. 6. Segaloff, A.: Ann. Allergy *12*:565, 1954. 7. Kern, R. A.: Am. J. M. Sc. *233*:430, 1957.

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CORRESPONDENCE

An Example of Illogic

Publication of the material below is intended to call attention to an unfortunately common type of thinking. Identifying names have been deleted. The state, city and individual are not important. Only the ability of a physician to think logically is important. The all too common willingness of physicians to indulge in illogic such as this is the subject of an editorial in this issue. Ed.

September 3, 1958

EDITOR, NORTHWEST MEDICINE:

I am sure that you will agree with us that many physicians are not utilizing the accumulated mass of the newer knowledge of nutrition in the care of their patients. One of the reasons responsible for it is the neglect of adequate nutrition courses in medical schools.

The Commission on Nutrition of the Medical Society ——— has endeavored to overcome this neglect by developing a dynamic nutritional education program for practicing physicians in our State. We are taking the liberty of enclosing, herewith, a reprint of an editorial from the ——— Journal, giving details of this program. We hope that you will find it feasible to republish this editorial in one of the issues of NORTHWEST MEDICINE in order to stimulate interest in clinical nutrition among practicing physicians in your State.

Very sincerely yours,
————————, M.D.
Chairman
Commission on Nutrition.

EDITORIAL

Nutrition and a State Medical Society

The ultimate goal of all research and clinical investigation in nutrition is the improvement of the health of the

(Continued on page 1420)

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(Continued from page 1419)

people. To this end several progressive state medical societies have established programs which vary in scope and objectives but which have as their fundamental philosophy the "practical application" of our newer knowledge of nutrition.

One of the leading examples of such a progressive viewpoint may be found in the report of the Commission on Nutrition ———. The Commission's report may well be studied by appropriate commissions of other state medical societies for it represents an admirable example of what can and should be done.

In brief, the Commission has had two objectives: (1) The stimulation of interest in clinical nutrition at state and county levels; and (2) the dissemination of factual information on nutrition to both practicing physicians and the laity.

* * * * *

As part of an education program, the State Nutrition Commission organized various symposia. These were held at State Medical Society meetings, and in cooperation with the National Vitamin Foundation, and with the ——— County Medical Society.

The Commission has also urged the establishment of nutrition clinics throughout the state and supported a pioneering nutrition clinic now in operation at the ——— General Hospital.

In cooperation with the Dietetic Association, a program will be prepared for the laity.

* * * * *

The writer has had an opportunity to see a proposal for the establishment of a Division of Nutrition within the Department of Public Health of the City of ———. Because it is felt that this may be of interest to some of our readers, the following is a brief summary of this proposal.

The purposes of such a Division of Nutrition within a City Department of Public Health are (1) the promotion of better public health through research and special clinics; (2) the prevention of diseases arising from public ignorance of this field; and (3) direct participation in programs both in prenatal clinics, maternal nutrition studies, and school nutrition projects; and finally (4) rehabilitation of those who are in medical need from the public health standpoint, such as obesity, nutritional anemia, diabetes, etc.

The recommended organization would be located in a large city hospital. The staff would consist of a director, three physicians, two dietitians, a psychiatrist, a laboratory technician, two social workers, and a clerk. A number of laboratory studies would be performed including, in addition to routine determinations, analyses of vitamin C, urinary thiamine, urinary riboflavin, and electrolytes.

The Nutrition Division could plan courses for members of the Department of Public Health, such as public health nurses, dietitians employed by other state and city agencies, general physicians, and school physicians. Furthermore, this division could furnish consultants to other departments within and outside the Department of Health, would engage in the nutrition and education in medical schools and hospitals, help improve dietary practices in various state institutions, and advise various industrial hygiene divisions.

* * * * *

Seattle, Wash.
September 11, 1958

———————, M.D.
————————
————————————
Dear Dr. ——:

Your letter and the editorial from the ——— Journal are very interesting. You are to be commended for your desire to disseminate information to the practicing physicians. However, we do not plan to use the editorial in our journal as you suggest.

I hope the plan to establish a division in the ——— health department did not originate with your commission or with the Medical Society. If any member of your group or any official of the state society believes this a matter for health departments, I believe he should reexamine his basic philosophy about the practice of medicine. Nutrition seems to me to be a personal matter, hence one about which the individual might well consult his personal physician. I do not believe, except under socialistic concept, that the nutritional problems of one person can endanger another person.

Public health departments are given authority under what is spoken of broadly as police power. The state, again in the broad sense, must protect the individual from being harmed by his fellows. This principle extends to prevention of communicable disease. Physicians who have embarked on careers in public health understandably do not wish to confine their activities to that field alone but are trying to expand into what might better be described as health of the public. Under such concept a public health officer could practice medicine without restraint. In general, I do not believe this is a desirable development.

Yours very truly,

Editor, Northwest Medicine

September 19, 1958

Editor, Northwest Medicine:

I agree with the precept that government should not engage in the private practice of medicine. It is neither the purpose nor the intent of our Commission to advocate such a course. However, the aim of the Commission as approved by the House of Delegates of the ——— Medical Society, is (1) The stimulation of interest in clinical nutrition at state and county levels; and (2) the dissemination of factual information on nutrition to both practicing physicians and the laity. In order to implement these objectives, the Commission has advocated the establishment of nutrition clinics as an integral part of the over-all nutrition program in the State of ———. This, however, is not to usurp private medicine, but rather to aid the practicing physician and to facilitate him in the care of those indigent patients in whom nutritional problems, either primary or secondary in nature, are concerned in his rehabilitation program. We also feel that through such means, we shall be able to combat, in a scientific and ethical manner, the fads and fancies in regard to nutrition as they are drummed into the general public by television, radio and the press. Furthermore, we are of the opinion that the average practitioner of medicine has long neglected the utilization of significant information of the newer knowledge of nutrition in the daily care and evaluation of his pa-

tient. It is for this reason that we established a nutrition clinic at the ——— General Hospital, which is an 1800 bed institution, on a strictly charitable basis, so that we can better train the house and general hospital staff in applied nutrition in its broad aspects. We have also been able to carry out some basic and clinical investigations by means of such facilities with funds placed at our disposal. Only by having such a unified program could we honestly and sincerely carry out the aims and objectives of the Commission on Nutrition as approved by the House of Delegates of the State Society.

We note your comments regarding the function of Public Health Departments in the prevention of communicable diseases. We fully agree with you in this. However, infectious and contagious diseases, once prime public health problems, have left their estate to the chronic degenerative diseases, in the development and care of which nutrition plays an important part. It was therefore felt that a well-rounded public nutrition program should be established in ——— through the creation of a division of nutrition within the Department of Public Health of the City of ———.

Sincerely yours,

————————, M.D.
Chairman
Commission on Nutrition.



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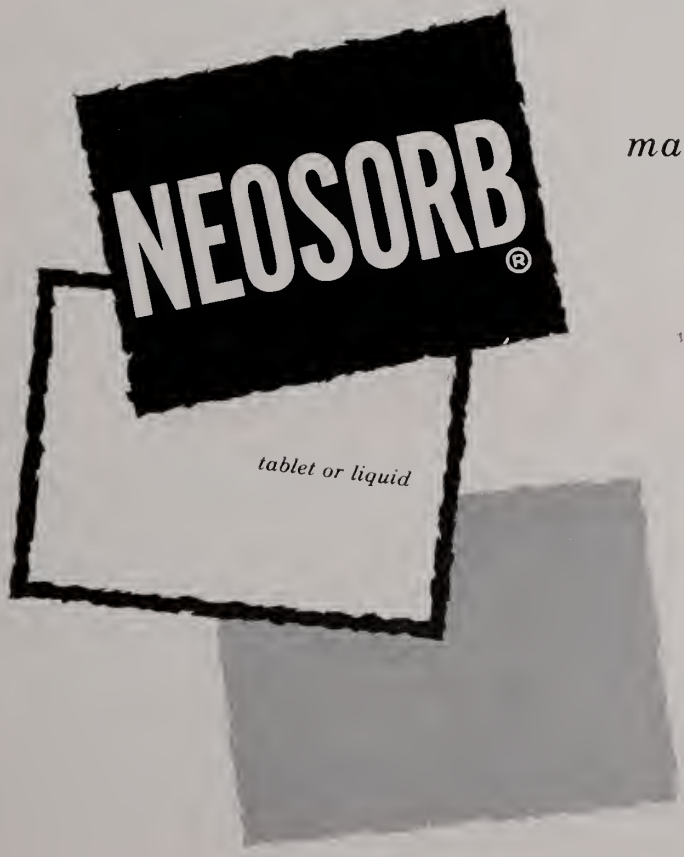
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 11
NOVEMBER, 1958

EDITORIAL

New Drugs

Changes in the fields of pharmaceutical manufacturing, pharmaceutical dispensing and the practice of medicine now demand more prompt transmission of information. This need is recognized in the creation of a new department, the page on new drugs, inaugurated last month. Information carried on this page is received at the last possible moment before going to press and is the latest available anywhere. Notes on new products are brief but sufficient to give the physician an idea of usefulness. Complete, detailed information will be always available at prescription pharmacies in *PharmIndex*, a bi-weekly publication prepared primarily for pharmacists.

Developments in pharmaceutical manufacturing have outmoded the once great art of prescription writing. This has both simplified and complicated the problem of providing the best possible treatment for the patient. The physician no longer needs to remember compatibilities, solubilities, flavors, consistencies or vehicle characteristics. Modern chemistry being what it is, these considerations would now impose an impossible burden. What he does need today is a reliable guide through the profusion of products available. Above all, if he is to keep abreast of progress, he needs constant flow of information about action and uses of new drugs. His need is for communication.

Pharmaceutical manufacturers have assumed much of the responsibility for research and development in the field of therapeutics. Their laboratories are working virtually day and night to develop new compounds and test them for usefulness in clinical medicine. Developments in their field have not simplified their problems but have complicated them. Production of ingredients and distribution to pharmacists is no longer a major portion of their business. The pharmacist no longer decides which manufacturer's product will go into the prescription he is filling. He must supply the brand called for by the physician. The manufacturer, therefore, has urgent need for communication directly to the physician.

The pharmacist now spends little time in compounding but much in familiarizing himself with an enormous number of products. Physicians frequently ask him for information. He has become not only a dispenser of drugs but also a dispenser of information. A recent survey indicated that 95 per cent of physicians used such service from pharmacists. It is highly significant that most inquiries were about availability of products and next most frequently sought was information on sizes marketed. The pharmacist also leans heavily on communication.

Communication in today's complex world is of paramount importance. Nowhere is it more so than in the closely related fields of pharmaceutical manufacturing, pharmaceutical dispensing and the practice of medicine. The three are independent fields of activity but highly interdependent in their need for communication. The page on new drugs has been designed to help in meeting this need. It provides quick reference for busy physicians who are trying to keep up or are looking for new help in solving a problem in therapy. •

Policies of Present AAMC Leaders

The Association of American Medical Colleges should be watched carefully by those who are concerned about the future of medical education in America. Manner in which its present leaders conducted the meeting of that organization at Philadelphia last month should arouse considerable suspicion if not actual mistrust. From some of the policies pursued, and from some of those advocated, it is impossible to escape the conclusion that present leadership of the organization is bent on taking medical education, and medicine, directly into a socialized system.

The AAMC is generally considered to be the deans' organization. While this is no longer strictly true, since certain other public officials and a considerable number of individual medical educators have now been admitted, the association is still dominated by the deans of medical schools. This is particularly true of the secret sessions, conducted in advance of the regular annual meetings, to which only the deans and a few carefully screened individuals are admitted. Others have no chance of gaining admission to these secret sessions as was amply proven last month. From all that could be learned at Philadelphia it would appear that decisions reached behind the closed doors of these gatherings are merely given rubber stamp approval in the open meetings which follow.

Prior to the experience at Philadelphia last month, it had seemed regrettable that the AAMC has been regarded with such reserve by some physicians familiar with medical education and devoted to its promotion. However, this lack of confidence becomes more understandable when it is seen that those who hold positions of great responsibility in the organization find it necessary to resort to maneuvering behind closed doors and subsequently make open advocacy of moves leading directly into socialization.

Wishing only to obtain background information concerning problems and deliberations of the AAMC, particularly those connected with operation of a university teaching hospital, the Committee on Medical Education of the Oregon State Medical Society sent one of its members as a delegate to the Philadelphia meeting. It seemed particularly desirable that the representative be allowed to attend some of the pre-conference sessions merely as an auditor. Among other closed meetings listed were two sessions of the Medical School-Teaching Hospital Section of the Association (Section members and Deans only), and a meeting of the Executive Council, deans of medical schools and representatives of governmental agencies.

Since these were listed as "closed meetings" and attendance of not more than 90 was anticipated, it was felt that a non-participating auditor would offer no problem. Three separate efforts to obtain the courtesy of permission for the representative of the Oregon State Medical Society to attend as auditor were refused point blank by messages conveyed from the Association's president. No explanation concerning the secrecy of these pre-conference meetings was vouchsafed by the president or by those who relayed his curt refusal. His brusque and discourteously worded personal explanation was that these were "closed meetings" and he wondered if the inquirer knew "what a closed meeting represents."

The Oregon Committee on Medical Education, in directing one of its members to attend the sessions, realized that neither time nor the public nature of the regular session would permit full and free discussion of all subjects. Therefore it was felt that the "closed meetings" could provide a type of information not otherwise obtainable. The Committee felt that without more adequate understanding of the problems faced by the deans and wider background in the whole field of medical education, it would be handicapped in its efforts to solve some of its own problems in Oregon. It was for these reasons that the Committee persisted in its efforts to gain admission to the closed meetings in spite of repeated rebuffs.

The prospective Oregon auditor approached these meetings in anticipation of instructive and informative conferences with no thought that the serious intentions of a duly elected representative of an interested state medical society would be so rudely spurned. He was finally forced to conclude that the rigid, Prussian attitude, displayed in forbidding admission to a physician and teacher, was due to the fact that there was something to hide.

This suspicion was enhanced on the first day of the public meetings when the president of the Association stated clearly and unequivocally

his belief that federal funds for medical education are a desirable form of subsidization. Supportive argument was given this position in a brief historical review, dating from Thomas Jefferson, of governmental attempts to become involved in scientific disciplines. The president expressed the opinion that no danger of political control is involved if the medical colleges accept, as a permanent policy, increasingly large Federal grants as long as they are *without Federal control.*

Considering some of the applause that greeted this declaration, it is obvious that other deans also favor the socialization of medicine. It is as certain as night following day that socialization of medical education involves socialization of medicine. This, by its own weight, eventually will drag the entire economy—political, social and commercial—into the dreadful abyss of communism. The point at which increasingly high taxes and budget deficits caused by large Federal grants, cease to be socialism and merge into communism has never been clear, for no line of demarcation exists.

Certainly in the field of medicine there are now clearly audible among the medical school deans, some vociferous elements, wittingly or unwittingly serving the cause of communism with sonant skillfulness. It now becomes clear why the communion of medical school deans has been regarded so reservedly by some.

Rigidly closed meetings and the indirect advocacy of communism through socialization of medicine by way of Federal control through increasingly large Federal grants, as advocated by the president of the Association, leave little room for speculation as to where present leadership of the AAMC would take us.

Justice Robert H. Jackson was serious and without guile when he said, "It is hardly lack of due process for the Government to regulate that which it subsidizes." •

An Example of Illogic

At the risk of using paper and printer's ink in amounts disproportionate to the seriousness of the subject of correspondence, an example of a commonly met form of illogic is published in the correspondence section of this issue. Names of the writer of the first letter and the name of the journal in which was published the editorial praising his work have been deleted since it is desired only to point out a process of thought. The editorial tells a story of laudable effort until, suddenly, one comes to the point at which a public health department is brought into the picture. Surprise is not lessened by the knowledge that public health physicians have been intruding into the field of nutrition for several years.

If one holds to the principle of private enterprise and individual responsibility he must, in logic, assume that nutrition is something to be controlled by the individual and not by government. In this country, policemen are not expected to advise the purchaser what foods to buy at the supermarket or enter the kitchen to tell the housewife what to fix for dinner. Yet the physician who invites the health department to increase its activities in the field of nutrition is doing something no less foolish.

Health departments have power. They should have it. The medical profession has long insisted that they should. But it is power to keep one person from doing harm to another. That is what is spoken of, in the jargon of political science, as police power. And police power should not be permitted to intrude into anything which pertains so exclusively to the individual's responsibility for his own health.

It is at this point that confusion is presented by the writer of the letter of September 19. He agrees that a health department should not be concerned with non-communicable disease and immediately asserts that infectious and contagious diseases have left their estate to the chronic degenerative diseases. This is illogic, not only unworthy of a physician presumed to have had training in scientific thought but far more dangerous than outright propaganda for totalitarianism.

If physicians are willing to abandon to government one aspect of the practice of medicine, they have no logical basis upon which to oppose government taking over every other aspect. •

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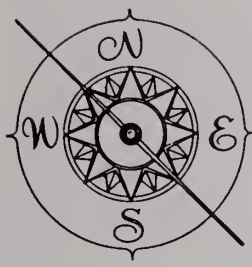
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ORIGINAL ARTICLES

Use and Abuse of Urethral Catheters

C. D. Creevy, M.D.
MINNEAPOLIS, MINNESOTA

Like most arts, that of catheterization requires knowledge of many small details and the patience to apply them carefully.

The urethral catheter can be an indispensable instrument or a deadly weapon. It has been used since before the dawn of medical history; curved bronze catheters were found in the ruins of Pompeii. Catalogs* list a remarkable assortment made of rubber, latex, woven fiber (silk, linen, nylon), molded plastic, glass, and metal. They take many forms. Their shafts may be flexible or stiff, curved or straight. Tips may be round, olive, or conical; any of these may be solid or hollow. Some have screw tips for attachment to filiform bougies. They are also available with mushroom (Pezzer) and winged (Malecot) tips to retain them in the bladder. These have been made obsolete for use in the urethra by the Foley balloon catheter, because it eliminates the pain and trauma which invariably accompany the removal of catheters with fixed lateral projections. They are, however, still useful for cystostomy and nephrostomy. Glass and metal catheters should be abandoned because their hardness and rigidity make them dangerous, and because of the danger of breakage of the former. The rubber catheters with tips which are solid back to the eye are a nuisance because they cannot be used with stylets.

One may fulfill all of the needs of an active urologic practice with five kinds of urethral catheters (Fig. 1). These include the red rubber or latex Robinson type with a hollow tip and two or more eyes near the vesical end; the rubber Thieman catheter with an angulated olive tip; the Phillips woven fiber instrument, with a conical tip terminating in a male screw for attachment to a filiform; the well-known Foley catheter and Alcoek's modification thereof with two lumina. Foley catheters have two advantages over all other types for continuous drainage: inflation of the balloon retains them in place without adhesive, and they permit escape of the urethral secretions invariably provoked by the long continued presence of a foreign body.

Stylets are used to stiffen hollow-tipped rubber or latex catheters and, if desired, to give them curves corresponding to those of the male urethra. They may be stiff or malleable and are made in straight and curved models. Proper use of the curved stylet obviates the need for the Thieman catheter in prostatism, but the latter eliminates the nuisance of inserting and removing the stylet. It is important to remember that

Presented at 66th Annual Meeting of Idaho State Medical Association, Sun Valley, Idaho, July 8, 1958.
*Those interested may profit by consulting the catalogs of the American Cystoscope Makers, New York, and C. R. Bard, Inc., Summit, N.J.

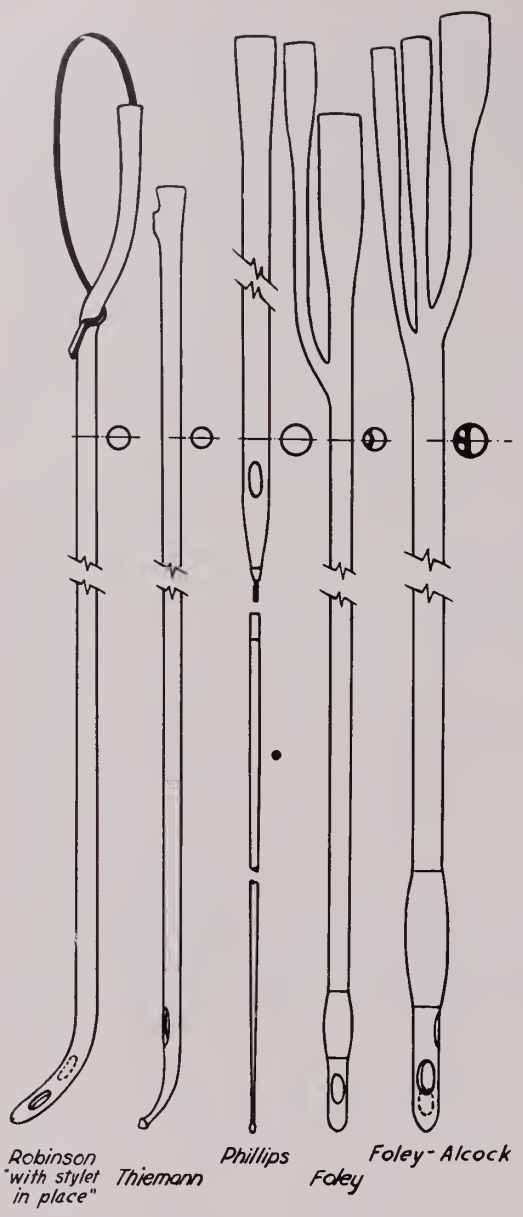


Fig. 1. Types of urethral catheters.

stylets are intended to guide the catheter through the curved and sensitive urethra, *not* to permit one to push through the substance of the prostate or the wall of the urethra. The use of force with urethral instruments is always a mistake.

A water soluble lubricant such as KY jelly is an indispensable accessory to the catheter. Vaseline and mineral oil attack rubber, are hard to wash off, and forceful injection of the latter into the urethra may cause oil embolism. While one ordinarily dips the tip of a catheter in lubricant, it is often helpful to inject 5 cc. lubricating jelly into the urethra, especially when some difficulty is anticipated. For this, one needs a glass plunger urethral syringe, the tip of which is longer and broader than that of the ordinary Luer syringe; it fills the external meatus so that the lubricant goes into rather than around it (Fig. 2). While this syringe may be used to irrigate the bladder, its manipulation requires two hands. For this reason a syringe with a rubber bulb and a tip that fits the flared end of the catheter is handier for this purpose.

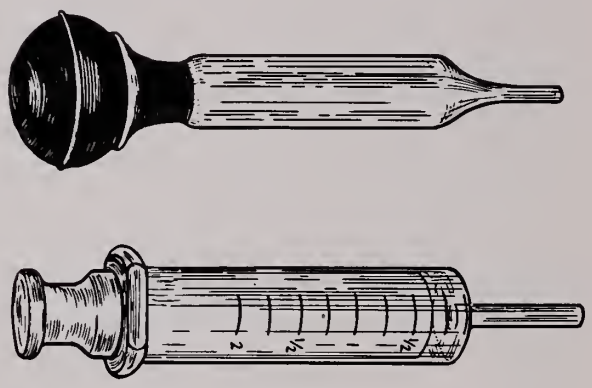


Fig. 2. Asepto and urethral syringes.

Another useful accessory is the bedside irrigator which, used with a Foley-Alcock catheter, permits continuous irrigation, particularly after transurethral resection; it may be a helpful temporary measure during bleeding of spontaneous origin (Fig. 3).

Munro's tidal irrigator is said to be useful for maintaining the tone of the detrusor during the phase of spinal shock following injuries of the spinal cord, but requires so much attention as to be impractical unless trained attendants are available 24 hours a day.

Infections of the bladder which resist good therapy with antibiotics or urinary antiseptics, particularly in the presence of residual urine, may sometimes be greatly improved by use of the "bladder splint" (Fig. 4). The small limb of a Foley-Alcock catheter is connected through a Murphy drip with a reservoir containing an antiseptic such as 0.8 per cent sulfanilamide. The large limb is connected, through an inverted Y tube attached to a bedside stand, to a urinary receptacle on the floor. Flow is controlled by a Hoffman clamp below the drip. If the open apex of the inverted Y is just above the level of the anterior wall of the bladder with the patient supine, or above the vertex when he is sitting up,

a small puddle of antiseptic in any desired concentration will bathe the bladder.

This method is particularly useful when resistant chronic inflammatory changes in the vesical mucosa are so severe as to conceal the ureteral orifices or a suspected neoplasm, as well as when symptoms do not yield to ordinary treatment. By using solution G** for the irrigation, it may be possible to dissolve the encrustations of a chronic ulcerative cystitis due to urea splitting bacteria. If the solution irritates the bladder, it may be diluted. The object is to convert the insoluble calcium salts in the encrustations to soluble calcium citrate, and to wash it out.

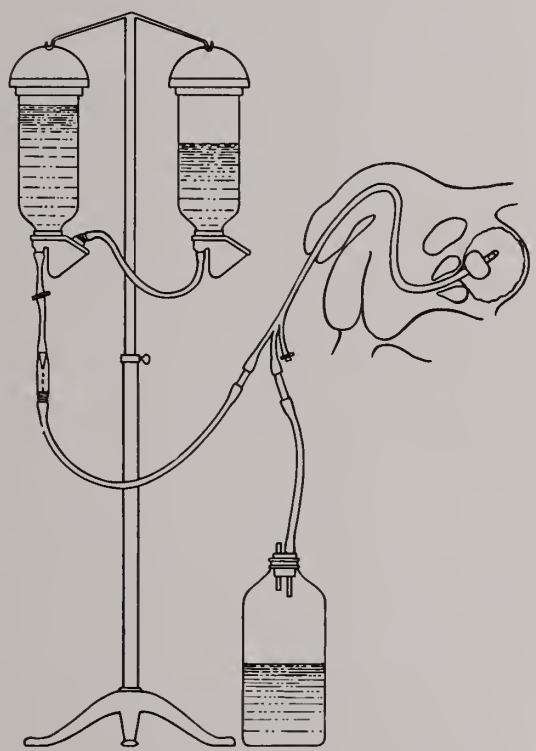


Fig. 3. Bedside irrigator.

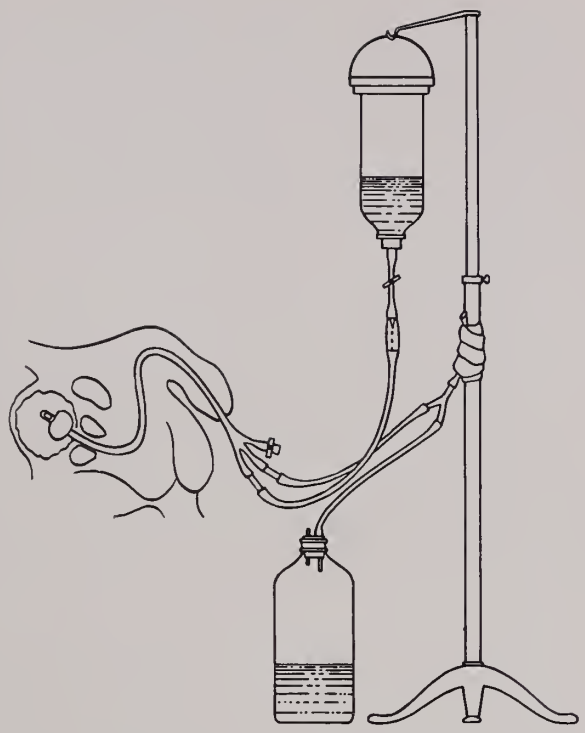


Fig. 4. Bladder splint.

Uses of the Catheter

A simple enumeration will suffice here. The catheter is indispensable for the measurement of *residual urine*, especially in the patient with a normal feeling prostate and increased frequency of urination in the absence of pyuria. Its use for the relief of *acute urinary retention* is obvious.

**SOLUTION G.

Citric acid monohydrate	32.25 Gm.
Magnesium oxide (anhydrous)	3.84 "
Sodium carbonate "	4.37 "
Water to make	1000.00 cc.

It is well to emphasize here that there is no evidence whatever that sudden emptying of the distended bladder is in any way hazardous. One should, however, strive to prevent redistention as well as infection. It is also obvious that use of the catheter will permit the *location of strictures* of the urethra, although other measures will be needed to determine their caliber and length. *Clots may be evacuated* from the bladder by the judicious employment of the catheter, although a larger than normal size will be required (see below). Smith, Toulson, *et al.* have found that the removal of clots is facilitated by leaving 20 cc. of saline containing 100,000 units of streptokinase and 25,000 of streptodornase in the bladder for 20 minutes. The dissolved clots are then usually easily washed out with a syringe. If clots are large or old, repetition may be necessary.

Catheters are left *inlying* for a number of reasons. Chief among these is *urinary retention.* In the acute form the purpose is to rest the detrusor in the hope that the retention was precipitated by active swelling of the prostate superimposed upon a pre-existing enlargement, and that the former will subside, permitting normal urination. In the case of acute *postoperative retention,* the objective is to prevent atony of the

detrusor from overdistention until the factors responsible for the inability to micturate (narcotics, pain in the incision, enforced rest in bed) have disappeared. *In injuries of the spinal cord,* the aim is to await the return of tone to the denervated bladder as a result either of recovery of the spinal cord or of the establishment of an automatic bladder.

Occasionally, rest of the detrusor with the inlying catheter will so increase its tone that the patient with residual urine from a *degenerative lesion of the spinal cord,* such as tabes dorsalis, will again empty his bladder completely, particularly if assisted by the cholinergic drugs and by urination at fixed intervals. He may have to supplement the feeble vesicle contractions by suprapubic pressure, and by trying to void in two stages. This is likely to fail if atony of the bladder is severe.

Perhaps the commonest indication for use of the inlying catheter is presence of *chronic incomplete urinary retention, due to prostatism* and complicated by impaired renal function due to "backpressure," or by an acute febrile infection. Objectives are improvement of the renal function and subsidence of the acute phase of the infection.

Another but less well-known use of the catheter is the *rapid dilatation of urethral strictures* when this is desirable to permit drainage of the distended bladder or cystoscopy. This is usually accomplished by first dilating the stricture as far as possible with a filiform and Phillips catheter. If dilatation cannot be carried far enough to permit insertion of a small Robinson or Foley catheter (the latter is available in 10 French) on a stylet, the largest acceptable Phillips catheter is tied in with strips of adhesive (Fig. 5). Twenty-four hours later enough softening of the stricture will usually have occurred to permit dilatation to two to four sizes larger, using the Phillips catheter and injected lubricant without withdrawing the filiform. This can be done daily until a size 12 Foley can be inserted. Thereafter a styletted Foley two sizes larger can be inserted each day until the desired caliber has been reached.

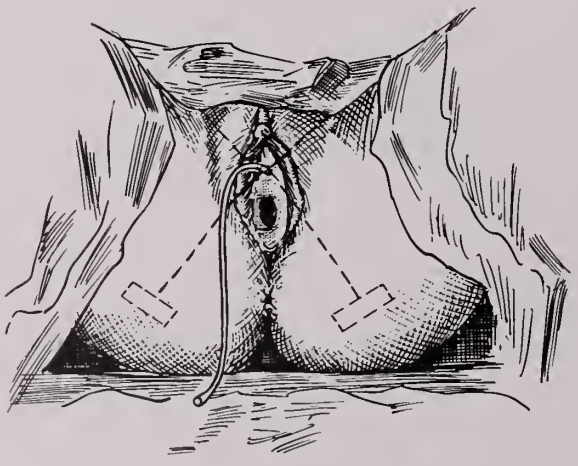


Fig. 5. Securing inlying catheter in the female.

Use of the inlying catheter for the local *application of antiseptics* has been mentioned in connection with the "bladder splint."

Lastly, the catheter may be used to achieve *cleanliness in irreparable urinary incontinence* in the female. An incontinence bag or clamp (Cunningham or Foley) is preferred in the male who can tolerate it because it avoids the infection that inevitably results from use of the catheter.

Technique of Catheterization

While it may seem very elementary to speak of this, the difference between good and poor technique in catheterization may make the difference between comfort and misery, or between health and protracted illness or even, in extreme cases, death. All catheters should be washed thoroughly inside and out with soap or detergent and hot water, and rinsed with plenty of hot water. Rubber or latex catheters should then be boiled for 15 minutes. They may also be autoclaved for 10 minutes at 15 pounds pressure and 250 F. A slower but effective alternative is to soak them for 30 minutes in 1 to 500 solution of oxycyanide of mercury (*not* cyanide of mercury). They may then be used without rinsing, unless it is desired to secure urine for culture, in which event the antiseptic should first be flushed out with sterile water. All accessories used with the catheter should be sterile.

The most convenient position for catheterization requires flexion and abduction of the thighs with the heels resting upon the bed or examining table; knee crutches are a great convenience in the office. A good light is essential for catheterization of the female.

The foreskin is retracted in the male and the labia are separated in the female. The penis or labia are washed with soap or a detergent, such as Phisohex, and rinsed with sterile water. It is desirable then to place a pledget of gauze soaked with 1 to 2500 aqueous Zephiran upon the glans or introitus, and to leave it for a few minutes. If

a male patient is apprehensive or hypersensitive, it is a humanitarian act to employ topical cocaine, provided no trauma has been inflicted first. Four and one half grains (270 mg.) of cocaine are freshly dissolved in 10 cc. of sterile distilled water, and injected *gently* into the urethra with a quarter ounce Asepto syringe (a vigorous injection may force the cocaine into the bloodstream with serious or fatal results); the solution can be retained in the urethra by wrapping a strip of gauze snugly around the corona. Ten to fifteen minutes should be allowed for the cocaine to act. Catheterization will be facilitated and pain lessened if 5 cc. of KY jelly are then injected gently into the urethra with an urethral syringe. One may, of course, mix the cocaine with the lubricant, but this takes longer than the above method. Preparation of the mixture beforehand is undesirable because deterioration of the cocaine may occur. There are preparations of other local anesthetics in lubricants on the market, but I have not been impressed with their effectiveness; xylocaine is effective but costly; cyclaine will serve.

Selection of Type

The type of catheter to be used depends upon the objective. For measurement of the residual urine or other single catheterizations, a Robinson catheter size 14 French is ordinarily preferred, but the Thieman is better for prostatics; if it is to be left inlying, a Foley catheter, size 16 to 18 French is satisfactory. If continuous irrigation is intended, a size 18 to 22 Foley-Alcock is used. Use of the filiform and Phillips catheter in strictures has already been mentioned. For evacuation of clots, one needs a comparatively stiff Robinson catheter size 20 to 22. It is helpful to cut a couple of extra eyes near the tip. A soft catheter will collapse when one tries to aspirate clots. Nevertheless, a soft catheter is preferred for continuous drainage in the absence of clots because its presence inflicts less trauma upon the urethra.

If no difficulty is anticipated, the catheter may be inserted with a sterile hemostat. Care should be taken that the open end of the catheter does not become contaminated (Fig. 6). If difficulty is expected, it is better to wear sterile gloves. It is of the utmost importance to be *gentle,* remembering that the object is to *follow* the curve of the urethra, not to alter it, and that the use of force can only do damage. If the catheter is arrested before the external sphincter is reached, one must assume that a stricture is the obstacle. One then resorts to the Phillips catheter.

If an obstruction is encountered in the region of the external sphincter, spasm is a likely cause. A narcotic given intravenously will minimize delay. When sedation appears, one may then use a catheter fitted with a stylet with a Van Buren curve, or use the Thieman instrument. If lubricant has not been injected, it should be used now. In difficult cases the styletted catheter has the advantage that it can be guided both with the handle and by a finger in the rectum, thus directing the tip forward over a protruding middle prostatic lobe. If this maneuver fails, one may resort to anesthesia (spinal or general), *not* to permit one to force the catheter in, but to secure relaxation which will permit instrumentation without force.

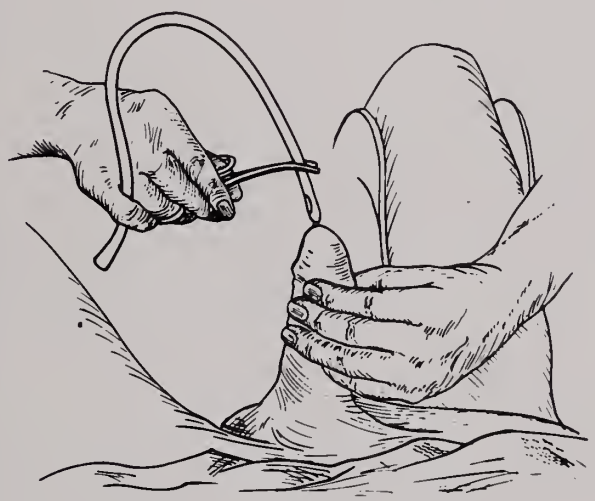


Fig. 6. Introduction of catheter using hemostat.

If this fails and the bladder is distended, one may aspirate it, first infiltrating with procaine a small patch in the midline directly above the symphysis pubis. A spinal puncture needle is convenient. Since most instances of impassable obstruction in the absence of stricture are due to spasm of the external sphincter from distension of the bladder, one may usually catheterize the patient with ease immediately after aspiration; a Foley catheter should be used and left inlying.

To recapitulate—instruments should be sterile; technique aseptic and gentle; and lubricant used freely, by injection if any difficulty is anticipated or encountered. Topical anesthesia is desirable

in apprehensive patients not previously traumatized. General or regional anesthesia may be essential to relax spasm of the sphincter.

Prolonged Catheterization

If repeated instrumentation is necessary, or if an inlying catheter is used, it is probably desirable to use an antibiotic with a fairly wide spectrum, avoiding those which are known to produce reactions frequently, particularly if a long period of treatment is expected. Gantrisin and the triple sulfonamides are probably to be preferred for ordinary use, reserving the more potent agents for complications. It is far more important to prevent redistension and infection than it is to worry about "sudden emptying" of the distended bladder. When inlying catheters are used for long periods, they are best changed every five to seven days to prevent plugging by encrustations of urinary salts, mucus, or thick pus. It is well to allow an hour to elapse between removal of the old and insertion of the new catheter so that infected material may drain out of the urethra. When a catheter is removed after a period of rest of the bladder instituted because of acute retention, it is desirable to measure the residual urine 12 hours or so later, lest a high grade chronic retention be overlooked. Catheters which have been left inlying in the presence of infection should be destroyed upon removal because they cannot thereafter be sterilized with certainty. •

University of Minnesota Medical School, (14).

(Washington AMA office has prepared Special Report 85-14 on legislation of medical interests introduced in the 85th Congress. This complete, detailed analysis will be sent to anyone requesting it from William J. Kennard, M.D., Washington Office, American Medical Association, 1523 L Street, N. W., Washington 5, D. C.)

From the AMA Washington Letter:

Complete Report on Last Session's Legislation now Available

The Special Report notes that in the past year the American Medical Association was fortunate in its legislative work. It supported most of the 19 major bills passed by Congress, and not a single major bill opposed by the Association became law.

In reviewing the year's legislative activities, the report declares:

"These pages are specific evidence, if any is needed, that medical legislation is one of the most popular areas of Congressional activity. Each year this Special Report is a longer document, because more and more health and medical bills are introduced. Ten years ago the Washington Office was following 200 measures through Congress; in the past Congress, we kept watch on 704 medical bills and resolutions of the 20,604 total legislative proposals introduced during the two years of the 85th Congress.

"This annual gathering together and tabulating of legislation serves a number of purposes. Its immediate value is as a sound source of information on exactly what measures were introduced and what happened to them during the past Congress. Its long-range value is its disclosure of legislative trends over the years. An issue seldom comes to the fore overnight, or even in a year; but with a complete record available, an issue's evolutionary process can be traced to inception of the idea . . .

"Successful opposition to the addition of compulsory health insurance to the social security system occupied more time and effort on the part of AMA employees and physicians everywhere than any other one assignment. This proposal was strongly supported by organized labor, and without question will be pressed again next year. To meet this issue, the Association has a positive program that will continue to bring private health care to all the population at a reasonable cost . . ."

Treatment of Injuries to Athletes

Don H. O'Donoghue, M.D.
OKLAHOMA CITY, OKLAHOMA

Athletic endeavor has from time immemorial been the natural inclination of our youth. In pre-high school this has been, until recently, of an unorganized type. By the time high school is reached, although a lesser proportion follow organized athletics, the degree of organization has increased. The college years find a still smaller but none-the-less considerable group to whom athletics is a major, sometimes the major, interest.

Whereas the spotlight of publicity has shone brightly on those facets of great reader interest, comparatively little attention, outside the confines of the sport itself, has been paid to injury and even less to conditioning. An occasional blare of publicity follows major injury to a stellar athlete or the untimely death of a budding prep school player. Occasionally this triggers a lay magazine article on the importance of proper equipment and the value of physical conditioning as important factors in the prevention of injury. In the final analysis, however, the lay public and, I fear, the majority of our own profession, has little knowledge of the actual mechanics of training or the treatment of athletes who are injured.

In order to realize what makes a given program superior and another inferior, it is necessary to set some criterion of perfection for any given situation. Obviously, all schools cannot have identical programs. Each must modify the ideal to best fit the realities of its particular situation. All should strive for continuous improvement.

It should be the ambition of any physician interesting himself in the treatment of athletes to do everything within his power to improve the preliminary training of these young men. This will accomplish two ends. It will diminish the total number of injuries, and, if injury does supervene, he will have a fit patient to treat.

Why is it important for young men to participate in athletics? Perhaps the solution of the problem of athletic injuries lies in the prayer of the timorous mother that her boy not compete. Abandonment of sports would certainly be the quickest way to prevent injuries to the contestants. Are there real benefits—true tangible benefits—to be derived from athletics? Let us examine for a bit the pros and cons of this question.

Benefits of Athletics to the Participant

Physical benefits.

No one can seriously doubt that athletics in its various phases serves to build a strong, healthy body better able to serve its possessor through a long and useful life. The myth of the "athlete's heart" has been dissipated. The ex-athlete who turns fat when his years of competition have ended at least has postponed his impending adiposity throughout the years of his vigorous training. The trained athlete is outstandingly superior to his more sedentary fellow in drive and in stamina, and is better fitted for both work and play.

Character building.

Under proper circumstances and surroundings, the athlete acquires or strengthens many attributes of character that will serve him well throughout his life. The fact that the word *sportsmanship* seems trite in no way has changed its reality as a trait of character. Team effort as opposed to individual glory; the ability to take a job and follow it through; the necessity to take it as well as dish it out; the sacrifice of immediate

Read before the 66th Annual Meeting of the Idaho State Medical Association, Sun Valley, Idaho, July 6, 1958.

gain to the final goal—all are basic lessons learned by the successful athlete. The development of desire provides its own incentive toward character building that will serve well throughout life.

Material benefits.

Much has been said about scholarships, especially by those who are the least informed. Suffice it to say that an athletic scholarship does permit many a lad to finish his education who otherwise would have dropped out of school long before. The athlete, scholarship or not, has a keen incentive to stay in school. I think a good estimate of the quality of the scholarship program of a given institution can be made from the proportion of the scholarship boys who go ahead to graduation. Every effort should be made to encourage the player to continue his education even if it requires his staying on in school after his athletic competition has terminated.

Later benefits.

So much for the benefits of athletics to the student in school. What about after graduation? It has been said that the athlete out of school is as a fish out of water. Not so! Many athletes make some form of physical education their career. We all know of the big name coaches. But what about the myriads of others in every crossroads and hamlet of our country? Look in the grade schools, the high schools, the YMCA programs, the sand lots, the boys clubs, the Boy Scouts, and you will often find an ex-athlete carrying on the program. The athlete irreplaceably fills a need in training of the youth of America.

On a more personal plane, many athletes make contacts during their school years with men who are seeking their very type to man the leading jobs in industry. In 30 years of knowing and working with athletes, I have seen most of them display the same fine enthusiasm and attain the same great success in life that they did in school. Many of them have very responsible positions for which the original contact was made in school.

Yes, I think we can make out a very strong case *for* the athletic program. What about the other side of the coin? How about the disadvantages?

Disadvantages of the Athletic Program

Does athlete participation interfere with studies?

Perhaps it does sometimes. Far more frequently, however, it provides incentive to the student to work harder in order to justify his athletic participation and permit its continuation. Undergraduate students must find time for both studies and athletics. They are encouraged to budget their time by the very necessity for study, practice and a good night's sleep.

Does the athlete get a big shot complex?

Not for long! With few exceptions his teammates take care of that. On the other hand, the cocky, smart alecky youngster is trained to the necessity of cooperation and to appreciate the true worth of his teammates.

Is the athlete pampered in school?

No. On the contrary, the spotlight of publicity prevents this in that the stars and the others have little opportunity or desire to be favored in any way.

Does athletic training impair physique later in life?

Emphatically no. The exceptions prove the rule that athletes as a whole live longer, more active lives.

Do athletes get physical injuries?

Emphatically yes! Here is a very real objection to the athletic program. In fact, almost the only real disadvantage.

Here is our challenge: What has been done, is being done, and can be done to (1) prevent injuries, (2) minimize temporary disability, (3) prevent permanent disability?

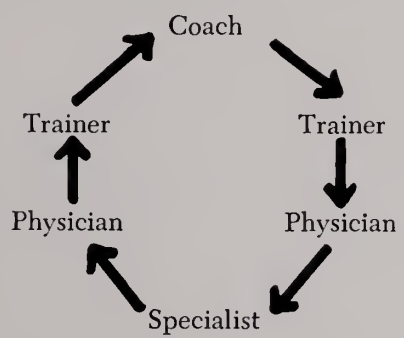
Much, indeed, has been accomplished in the last 20 years toward these ends. Not too long ago the trainer in most institutions was either non-existent or was a graduate from the supply room, his major equipment being a roll of tape and a bottle of linament. His aim was to "keep 'em rollin'." The doctor was a necessary evil to be avoided if possible. The conviction was prevalent that, once the player reached the doctor his days as an athlete were over. Too often this was true, for two pertinent reasons. First, the player reached the doctor as a last resort and long after ideal treatment should have been instituted. Second, the doctor failed to realize the importance, to that particular individual, of 100 per cent rehabilitation, and tended to belittle his keen desire to return to athletic competition.

In the past, there has been a tendency on the part of the coaching staff to demand that the player continue in spite of injury or be labeled

yellow. The trainer was urged to slap on some tape and return the man to the game—often to the detriment of the player, the team, and the game! More enlightened consideration has revealed that *everyone* is better served by promptly and ably treating the injured player and so obtaining his recovery before he does himself irreparable damage. The successful coach is indeed the protector of his players and seeks to prevent permanent injury of either body or mind.

In the well run athletic program of today, the coach, the trainer, the team physician and the specialist all combine in one effective working unit designed to maintain the players in optimum physical and mental condition.

The time when the player, coach, trainer and physician are all working at cross purposes is rapidly becoming a thing of the past. Athletic injuries are becoming less frequent. Severity of injuries is less. Periods of disability are shorter. The degree of recovery is more complete. The essential ingredient is the complete confidence and cooperation of coach, trainer and physician if the program is to succeed. The familiar medical triad—prevention, treatment, rehabilitation—is doubly applicable here. The cycle of cooperation and responsibility runs:



So, we have set the theme. Athletics are important and should be continued. Conditioning is important and will decrease injuries. The injury should be prevented if possible. Once an injury occurs, it should be treated promptly and adequately. Recovery must be complete. One hundred per cent rehabilitation must be the goal.

A college trainer or a high school coach who finds it necessary to handle his own training problems (in addition to his coaching), or the local physician who helps out with the high school program will find that his duties in this respect are divided into these three fields: (1) prevention of injuries, (2) treatment of injuries, and (3) rehabilitation of the athlete following injury.

In the ideal training program more time will be spent on prevention of injuries than is spent on treatment. The average layman and many school officials fail to realize the time and effort that goes into preventive training in such a program. It should be emphasized that treatment is only part of the trainer function and indeed the less important part. The more injuries that can be prevented, the fewer there will be for treatment and rehabilitation. The most important phase of prevention of injury is conditioning. This is a major and vital part of the program. It has been aptly said by a famous trainer, "conditioning is more important than skill, because conditioning helps prevent injuries and the best halfback in the world is of no value sitting on the bench."

Conditioning Begins in Spring

The conditioning program for the fall season of football should begin with the close of school in the spring. Major portion of this conditioning program must be carried out by the athlete himself. He cannot be expected to do it without proper direction and instruction. Each boy should be given a set of exercises which he should use at least three or four times a week until the first of August and daily thereafter until fall practice begins. He is encouraged to supplement these exercises by jogging, running, endurance and sprints. He is also encouraged to maintain his training, at least to some degree, by getting plenty of rest and sleep, eating proper food and avoiding dissipation throughout the summer months. Furthermore, each boy should be assigned the weight at which he is expected to be when he reports for the first day of fall practice.

No team is any better than the physical condition of its players. If not in shape, an individual player is affected in (1) his ability to play, (2) his mental attitude, (3) his determination, (4) his team work, and (5) his spirit. Any, or all of these factors may be affected to the point that he is unable to reach his full capacity.

The late Red Sanders, head football coach at UCLA, recently made the statement that football is 40 per cent ability—60 per cent physical condition and mental attitude. Tom Harmon, former Michigan All-American and presently a sportscaster, went Red one better on a recent radio show when he stated that football these days is 90 per cent mental and physical preparation. It all boils down to the axiom, *no team is better than its physical condition.* The objective

must be to get the team, as a whole and as individuals, physically stronger and tougher than their opponents. The players must realize that many fail to make the team for no other reason than that they are unwilling to pay the price of getting themselves in tiptop physical condition.

Equipment

A second phase of prevention is good equipment. This is an absolute necessity for a sound program. Many schools have a limited budget with which to work and this of necessity handicaps them in the purchasing of quantities of equipment. Although the budget is limited, it is not advisable to purchase large quantities of second rate equipment because in most instances this would mean that none of the players has good equipment. Too much emphasis cannot be placed on proper headgear. The modern, light weight headgear is extremely protective but does little good if the suspension apparatus is not properly placed to keep the head from contact with the inside of the helmet. Once good equipment is supplied, the coach should insist that, in order to compete, the players must wear the equipment prepared for them. Rushing into the contest without properly placed shoulder pads and protective knee pads is to be condemned.

Proper equipment must be supplemented by adequate taping or wrapping. There may be some difference of opinion among trainer and team physician as to the advisability of wrapping or taping every player's ankles. There is no question but that every weak joint or any joint which has been previously injured should be protected adequately before competition is permitted. Time will not permit here the discussion or the description of the various types of taping and wrapping, but one who is responsible for the care of a team must provide himself with the necessary knowledge and skill to be able to supervise this phase of the training program.

Prompt Examination

If injury cannot be prevented, the first important step is early detection of the nature and degree of the injury. The golden time to examine an athlete for injury is at the time he is hurt. Frequently, this first examination is by the coach or the trainer. He must conscientiously and objectively examine the player to determine as well as is possible the extent of his injury. Is it serious enough that he should be removed from the game? Should he be seen by a physician? May he be strapped up and returned to competition? To err is human but the margin of error can be reduced drastically by realistic consideration of the individual injury. Wishful thinking has no place in evaluation of injury since too much is at stake. The player is eager to continue and should not be deprived unnecessarily of this privilege. Still it is better to err on the side of conservatism since a little time will usually solve the problem.

If the injury puts the player on the sidelines, what then? If the program does not include a skilled trainer, by all means the injured person should be examined by a physician at once. When you, the physician, are called, what then? If you are to treat injuries, you must form the habit of early examination. The too prevalent custom of packing in ice and compression wrapping until the next day is a dangerous one. Frequently, prompt, careful examination will make the diagnosis easy. Several hours, or days later, swelling, edema, hemorrhage and pain may make it very much more dificult to reach an accurate evaluation of the location and extent of the injury.

So, the first step in a successful program is early examination and prompt treatment. The habit of treating Saturday's injuries on Monday is to be deplored. Once treatment is decided upon, carry it out confidently. If consultation with a specialist is needed, seek it promptly so that the specialist too may be able to take advantage of the optimum time for treatment. Once treatment is instituted, it should be carried out to its completion, with no compromise because of extrinsic pressures.

Concepts

I have found the following concepts of treatment to be of great value:

1. *The goal must be complete recovery.* I have heard eminent physicians say that, following a severe injury a player should not expect nor indeed be permitted to return to competition. This is specious reasoning. To many an athlete, this means a complete change in his career. Would you blithely tell a medical student or intern to change his career if you, by a better effort, could make such a change unnecessary? These boys are entitled to medicine's best effort.

2. *Avoid expediency.* Too often the decision as to treatment may be unduly influenced by immediate considerations. The player's desire to

compete, over-optimism, failure to recognize impending permanent disability, interference with school attendance, even convenience, may be permitted to be the deciding factor when objective medical evaluation should rule.

3. *The best treatment must be done.* This seems rather obvious but often we find ourselves saying, "Well, that ligament should be repaired but—." That fateful "but" may make the difference between some lesser per cent of recovery and return to normalcy.

4. *Competitive ability should be restored.* The physician must acknowledge the importance of restoring competitive ability to the player. If he does not, he has no business treating athletic injuries. A concert pianist would not trust his hands to one who believes that piano playing is unimportant. A vital link is formed between patient and doctor when there is unanimity of opinion as to the importance of the goal sought.

5. *Treatment must be prompt.* Unnecessary delay, once decision has been reached, or in fact, unnecessary delay in making that decision is not compatible with good results. We have been able to show conclusively that delay very often spells the difference between success and failure of treatment.

Rehabilitation

An integral part of the treatment of any injury is rehabilitation. Rehabilitative exercises should be started just as soon as possible after an injury. In fact, it is advisable to continue exercising all parts of the body which are not directly affected by the injury. By this method, muscle atrophy can be prevented and it is much better to prevent atrophy than to have to relieve it. If the injured extremity is kept in relatively good condition throughout the proper period of immobilization, the rehabilitative period can be much shorter for the part itself since the other muscles of the extremity can take over some of the load. For example, if the knee is injured and requires splinting and protection, the ankle and hip can be kept in good condition by active exercise. So, also, if the ankle is immobilized, the knee and thigh can be exercised.

In so far as the injured part itself is concerned, along with necessary immobilization and protection, sitting type exercises can be done from the first day which may be quite effective in reducing atrophy. The time required for rehabilitation will be in direct proportion to the length of time of immobilization. Immobilization, while extremely important, should not be prolonged unnecessarily. As soon as the conditions of the injury permit, very active rehabilitation should be carried out on the part involved. We use an outline of knee exercises which we hand to each postoperative knee patient as soon as his splint is removed. (See table 1.)

TABLE 1.

AN EXAMPLE OF REHABILITATIVE EXERCISES TO THE QUADRICEPS MUSCLE FOLLOWING KNEE INJURY OR OPERATION

1. Sit on the side of the table with the legs hanging over in a verticle position.
   - A. Raise the foot on the involved side to the horizontal position slowly to the count of 3 seconds.
   - B. Hold in horizontal position to the count of 3 seconds.
   - C. Lower slowly to the count of 3 seconds.
   - D. Rest for the count of 3 seconds.
2. Repeat this ten times. Rest a little.
3. Do this through 3 series of 10 times each, i.e., thirty times total.
4. These exercises should be repeated two or three times a day depending upon your tolerance.
5. When you are able to complete the series of 30 elevations, add weight to the foot at the next period of exercise and raise this weight until you can do it the full 30 times.
6. Continue these exercises, adding weight successively according to your tolerance until you are raising 25 or 30 pounds through this series. You may use the opposite knee for control if you like to get some idea how much you should expect to raise on your injured leg.
7. Make a chart for your daily progress and record on it each period of treatment, noting the ascending curve of your weight lifting capacity.
8. These exercises should be continued until the circumference of the involved leg thigh is the same as the uninjured thigh and until you are able to raise as much weight as you can on the uninvolved side. As your strength increases, these exercises can of course be supplemented by other exercises, such as going up and down stairs, partial knee bends, single knee bends, etc.

Selling the Program

But hold! Will such a program be accepted? Certainly, but not without some time and effort on the part of the doctor. He must be able to show conclusively that the program is better, not for the doctor, but for the school, the coach, and especially for the player himself. This *may* require educative effort; it *will* require time. The doctor himself must be prepared to cooperate fully, with ability and with interest. Then, as the doctor improves his program, the trainers and coaches will see the result. The injured knee regains unimpaired function. The sprained ankle

responds to treatment and a short complete layoff is followed by normal function as opposed to the player having a limping, ineffectual season.

The coach will note that prompt treatment restores the player more rapidly in the long run. Usually, the alternate is a more effective player than the crippled star. So, complete rehabilitation of the star is worth a period away from the game.

The player will not fear the doctor who has a sympathetic and understanding attitude. He notes that his buddy gets well. He soon takes treatment for granted. He expects to get well. The player will accept your recommendation for treatment, and you must be prepared to take the responsibility for it.

These are not idle dreams of Utopia. This can be done and has been done. It must be our aim to make it the rule, not the exception. Nor does it require a full scale, university type training program. It does require an able, conscientious coach, and a physician who will interest himself in the peculiar problem of the athlete.

The physical condition of our youth is vital to the welfare of our country. We must push steadily forward toward its improvement. This cannot be done in America by European type health clubs or hiking clubs or sun worship. It can be done by well organized competitive type athletics, provided the proper emphasis is placed on physical examination, training, and adequate medical supervision. •

The author wishes to acknowledge the great help received from Mr. Ken Rawlinson, head trainer at the University of Oklahoma, in the preparation of that section of this paper pertaining to training.

University of Oklahoma School of Medicine, Dept. of Orthopedic Surgery and Fractures.

Property Condemnation

The constitution of the state of Washington safeguards private property rights and in so doing provides that no private property shall be taken or damaged for public or private use without just compensation having first been made, or paid into court for the owner. The state, of course, can take private property from its citizens through the means of condemnation. In doing so, the state must get a Court order to the effect that the property in question is needed for a public use. The state must then pay for the property it condemns.

Many lawsuits develop over what is the proper amount to be paid by the state for property taken in condemnation actions. If the property owner is not satisfied with the amount offered by the state, he may take his case to the Superior Court and have a judge or a jury pass on the question of what his property is worth. However, once a judgment is entered in the Superior Court, the state may take possession of the property by paying the amount of the judgment into the Superior Court for the property owner. This is true even though the property owner is still not satisfied with the amount awarded him and, therefore, wishes to appeal his case from the Superior Court to the State Supreme Court.

The state also can appeal. However, if the state appeals, it cannot take possession of the property pending the outcome of the appeal. In a recent case the state paid the amount of a Superior Court judgment into court for the property owner, took possession of the property, and then appealed to the Supreme Court contending that the amount of damages assessed by the jury for the property was excessive. Our state Supreme Court refused to hear the state's appeal and dismissed it saying that the state "cannot have its cake and eat it too." In other words, if the state wanted possession of the property, it had to pay the damages assessed into Superior Court, and once the state did that it accepted the award of the jury and waived its rights to appeal to the Supreme Court.

(This column is written to inform, not advise. Facts may change the application of the law.)

Washington State Bar Association

Treatment of Burns with Particular Reference to Local Care

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I have chosen the topic of care of burns with particular reference to local care because it has seemed to me that so often the discussion of burn care has been devoted largely to control of the physiologic disturbances and to management of complications due to neglect of principles of good wound treatment.

I do not wish to minimize the tremendous significance of the basic studies in physiology and chemistry that have so advanced our knowledge of this most serious of injuries. Because of these studies, burn patients now survive extensive injuries which would probably have ended fatally 20 years ago, although actually statistics are not always clear on this point. However, death is not the only criterion by which to judge burn care. We must save our patient's life to be sure and that, of course, is the first consideration. However, we wish also to return the patient to a useful life as quickly as possible with the minimal amount of scarring, and psychic, physical and financial disability.

Some Reports Are Confusing

It has seemed to me that much of the discussion on the care of burns centers about a complicated mixture of chemical formulas and charts and graphs. The physician who cares for burn seems to be left in a state of confusion as to just what is essential and what the guiding and basic principles of burn wound care actually are. Certain facts have become well established and these should be properly emphasized. However, too often the reports of new experimental studies confuse the issue. The surgeon somehow is made to feel that unless he carries out all the various blood chemistry determinations, and administers the various electrolyte solutions as advised, he is not up-to-date.

It is important, I think, to distinguish between the valuable experimental work which is going on all over the country and the care of burns as it must be carried out in a clinical fashion. It is not necessary to verify all the experimental studies on every patient. What the surgeon needs however is a basic concept of the disturbances due to burn, and logical methods of meeting the requirements for care—both local and general.

It must be remembered that there are two important phases in burn care and that each has its own indications. I might take an example from the care of another type of open injury to illustrate the point I wish to make. Take, for example, an open fracture of the femur associated with great tissue damage and severe hemorrhage. Care of this injury is pretty well standardized and is on a logical basis. The surgeon knows that he must care for the open wound and that he must treat or prevent the shock which is certain to occur. He will immobilize the limb temporarily while intravenous fluid (preferably blood) is being started, and gauge the condition of his patient. As soon as shock is controlled he proceeds to care of the open wound. This is cleansed, debrided and closed. The fracture of the femur is reduced by whatever means seems indicated. There is never any question as to indications for care. The surgeon does not take innumerable blood samples for chemical determinations, but quickly replaces blood lost and

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thus forestalls the development of many physiologic complications.

The Wound May Be Forgotten

However when a burn, comparable in severity to the open fracture of the femur, is admitted to the emergency room the same logical system of care seems to break down. Fluids are started; a catheter is often but not always inserted; the patient is put to bed, and blood and urine samples are taken. This often constitutes the initial care. The wound is not cleansed; often it is simply left open as it is, and further fluids ordered according to some formula. Often nothing more is done locally for 24 to 48 hours. The initial fluid may or may not be enough, or it may be too much but no one checks the patient clinically every hour to see how things are going. Instead, a series of blood chemistries are ordered. Results are secured the following day. The value, meaning and therapeutic indications based on these chemistries may well be very confusing but the laboratory technician will tell the surgeon whether or not they are within normal limits. It is never exactly clear just what it is one is trying to accomplish or just what the indications are when the blood sodium is low or high. Nevertheless, the chart is full of blue and pink and yellow laboratory slips, while the patient complains of thirst, headache and nausea.

If the patient has passed the first two days, despite rather than because of care given him, attention finally is directed toward his burn. If it has been left open and uncleaned, it will now be covered with crusts. It is often weeping, red and painful. The patient will have been given antibiotics but somehow or other these have not controlled infection. Obviously nothing much can be done with the burn surface now. If it has been dressed the dressing is changed, causing great pain and bleeding. These dressings are then changed daily and the surgeon awaits separation of the slough.

Indications Are Clear

Now indications in the case of burn are as clear as those in the open fracture, and are practically the same—namely, to prevent shock or to treat shock if present by fluid replacement, and to cleanse and close the wound at the earliest possible moment. One factor in the burn which is usually not present in the open fracture is that the disturbed physiology in a burn is a continuing process which lasts for 48 hours or so. In other words, the loss of fluid in burn shock continues, and there is no way to stop it. In the case of the fractured femur the blood loss is usually soon stopped either by compression or ligation, or by natural clotting. Nevertheless, the surgeon watches the patient very carefully to be sure that bleeding is not continuing and he chooses the earliest time for surgery based on his observation of the patient.

I should like to outline the care of a large burn based upon what I conceive to be the basic principles of care. A burn is simply a large open wound due to heat and it affects tissues over a wide area, especially the skin. This extensive involvement leads to considerable tissue destruction, opens up the protective skin covering to bacterial invasion and leads to physiologic disturbance in body fluid distribution. Fluids are rushed to the site of injury, drawn first from the blood stream. As this source becomes depleted, fluid is drawn from tissues and tissue spaces. This fluid outpouring entails loss and redistribution of electrolytes. If this fluid loss is permitted to continue a condition of shock develops, in some ways similar to the shock of hemorrhage in that both are due to fluid loss. Other areas of similarity are present in that while the blood loss in mechanical traumata is due to actual loss of red cells, the loss in burn shock is due to actual destruction of red blood cells, plus trapping of cells in vessels where they cannot function as oxygen carriers.

Blood Is Best Fluid

Basic indications, therefore, in the two types of wounding are essentially similar. The life threatening emergency in each demands fluid administration to compensate for fluid losses. For a long while it was thought that in burn shock, in contradistinction to traumatic shock, the need was for colloids only—i.e., the plasma component of the blood since it was found that the cell pack tended to be very high in burn shock. However, it has come to be recognized that serious burns, just as serious traumatic shock, require blood replacement. Colloids, such as plasma, are very valuable in combatting shock but the actual loss of red cells demands making up that loss just as in traumatic shock with actual hemorrhage. It would appear also that the depression of hematopoiesis which follows a severe burn with its secondary anemia can be overcome more quickly if whole blood formed a significant part of the initial fluid intake.

Amounts of fluid required initially in the severe burn should theoretically be calculable from a knowledge of blood volume and the red cell pack. That would be fine if the fluid loss were sustained immediately, in one episode, and then controlled as it is when one ties off a large bleeding vessel. Unfortunately, however, this does not obtain. Burn shock is a progressive affair, which continues for 48 hours or so. Fluid loss is continuous and it is necessary for the clinician to seek some method for gauging the rate of loss and the fluid requirements based thereon. Much valuable information may be secured from hematocrit determination and red cell count, taken at frequent intervals. However, these are not always accurade guides. A more reliable method of making this determination is to measure the urinary output, for if the renal output is normal, usually taken to be 25 to 50 cc. per hour, the patient is getting enough fluids. Close clinical observation of the patient is likewise of great value and observations as to restlessness, thirst, nausea and vomiting are worth more, probably, than a host of laboratory tests. Harvey Allen once said that a flame photometer could not replace a good clinician.

Ordinary Wound Management Not Suitable For Large Burns

Indications for local care of the burn area are likewise similar in open fracture and burn. We are confronted with an open wound with tissue which has been destroyed or will soon become necrotic, and with other tissue so badly damaged that it cannot meet the demands of healing or combat infection. In the ordinary traumatic wound one would cleanse, excise the badly damaged tissue and secure closure. This is, of course, what one would like to do in a burn, and in fact is a procedure which can be carried out in small well localized and very definitely circumscribed burns. In the large burn, however, there are many factors which militate against this procedure.

First of all, one cannot accurately determine at first instance how deep or how extensive a burn is. One has, of course, a general idea and it is upon this that estimates are made as to the extent of burns. However, no one with any experience in handling burns would wish to excise a large area with such indefinite ideas as to extent. Another important factor which would contraindicate immediate excision is the fact that such an extensive excision would lead to marked hemorrhage. This further blood loss might well precipitate fatal shock or seriously aggravate shock already present or impending. If the surgeon attempted skin grafting at this time the further blood loss from this procedure would be a most serious hazard. It is true that immediate excision and grafting of large burns has been carried out, but the practice was soon discontinued.

The premises outlined above, if accepted, would determine the care of a burn somewhat as follows: Initial care for the burned area before hospital admission would be simply to cover it with a sterile dressing or clean cloth as first-aid. The less done the better because in these wounds, as in all open wounds, the dangerous contaminants come from human sources. While it is perfectly true that salves and ointments meet the demands of the victim and his family that something be put on—and they will control the pain to some extent—they cause additional harm and may seriously hamper definitive care.

First-Aid

Ordinarily at the time of first-aid it is not necessary to treat shock or impending shock if the patient is near enough to a place where proper care can be administered. However, if the burn is quite large, say 20 per cent of the body surface in an adult, and probably 10 per cent in a child, it may be advantageous to start intravenous fluids if the ambulance trip to the hospital may consume an hour or more. It is here that one of the plasma extenders may be very useful to tide the patient over the period when shock may develop if no treatment be given.

Except at the time of the actual burning and until the burn is covered, pain is not too great a factor in the acute burn. If a sedative is given it should be given at once, preferably morphine or meperidine in a small dose intravenously. The reason for intravenous administrations is, of course, well-known.

The Hospital Regimen

First-aid cared for, the patient is taken at once to a hospital for definitive care. At the hospital a definite regimen should be established for burn care. Few hospitals receive a sufficient number of large, acute burns to keep a burn ward occupied. However, hospitals in large centers, and especially public hospitals, receive a great number of burns each year and such institutions

should maintain a separate section where these injuries receive prompt and efficient attention. Of particular importance is the maintenance of strict asepsis. All personnel in the burn room wear cap, mask and gown. The patient, likewise, is masked.

On admission a rapid assessment is made of the burn. All clothes are removed, cutting them off rather than attempting to undress the patient, who is then covered with sterile sheets. Since this is a serious and extensive burn, an intravenous drip is started at once, after obtaining a generous sample of blood for hemoglobin, hematocrit, blood count and typing. A Foley catheter is inserted into the bladder and the urine withdrawn for analysis. The catheter is left in place and the urine collected for hourly measurement.

The type and amount of fluid to be administered intravenously will depend somewhat upon availability at first. It should be a colloid, preferably—plasma if suitable plasma is available, or a plasma extender if suitable plasma itself is not at hand. In an emergency an electrolyte may be given until such time as suitable colloid can be secured. In the meantime blood is being typed and cross-matched, so that whole blood should be available in a short time.

The amount of fluid to be given cannot be determined accurately at the start, but will depend upon the patient's response during the first 48 hours. It is well, however, to have some idea as to the possible amount, and for this the most used formula is that of the late Idris Evans. It is based upon the percentage of surface burned and the weight of the patient. The percentage of body surface may be conveniently estimated by the rule of nine. According to Evans' formula, 2 cc. of fluid are given for each percentage of surface burned times the patient's weight in kilograms. Thus, a 70 Kg. patient with 30 per cent burn would receive 70 x 30 x 2, or 4,200 cc. of fluid in the first 24 hours, and one half that amount in the second 24 hours.

This is intended to correct the fluid loss due to burn shock itself. There must be added 2,000 cc. of glucose solution to provide adequate fluid for normal physiologic metabolic requirements. This amount is static and represents daily fluid requirement of the individual regardless of the complicating conditions. This calculation is not to be taken rigidly since many variables enter into it. Calculation of burn area is by no means accurate and errors here may be very great. The tendency is to estimate too high. A burn the size of the palm is only 1 per cent, but looks pretty big. On the other hand, the initial estimate may be too low, since areas of burn frequently show up beyond the dressing 24 hours later. In general, however, the estimate is too high rather than too low.

Watching the Patient

Whether or not the estimated amount or more is given, however, must depend upon the clinical response of the patient and this calls for hourly observation by one conversant with burn care. Frequently the surgeon himself must take on this task if adequate help is not available.

The criterion for which one watches is the response of the patient—whether or not he is quiet and comfortable, or restless and irritable. The restless patient probably is not getting enough fluid and it should be increased. If the patient is restless it does not usually signify pain but dehydration, and fluid, not morphine, is the answer. Thirst, likewise, in the seriously burned patient is not an indication to force fluid by mouth. It may not be tolerated and may lead to vomiting with attendant further fluid and, incidentally, electrolyte loss. A very valuable measure of adequacy of fluid administered is the rate of urinary flow. With a Foley catheter in place the flow can be measured each hour and kept at 25 to 50 cc.

Other signs of shock, such as falling blood pressure and collapse of peripheral veins, should not be allowed to develop. For a number of years hematocrit determinations were made each hour and used as a guide to increase or decrease fluid administration, but we seldom rely upon them now. Our best guide is urinary output.

The type of fluid administered will depend somewhat on severity of the burn. There is more and more tendency today to give whole blood right from the start, possibly half whole blood and half plasma or extender. Very little electrolyte has been given at this time. Salt seems to be what may be needed and a small amount may be given as physiologic saline or preferably Hartmann's solution along with the blood and plasma.

Local Care

The local care of the burn starts just as soon as the patient's condition permits. If no shock is present and adequate fluid replacement is started at once, the burn may be treated immediately. If the patient's condition seems precarious, and shock seems imminent or is present, it is neces-

sary to wait. The patient is covered with sterile sheets until such a time as treatment is permissible.

Local care of the burn area is carried out in an operating room or other room, suitably equipped to insure strict asepsis. The room should be warm but not hot; there should be no drafts, and it should not be a thoroughfare for nurses and orderlies. Everyone in the room, including the patient, is masked.

The burn surfaces are first gently washed with soap and water. Where very extensive burns are concerned there is real advantage in having two or more individuals or teams at work so as not to take too much time in the process. After the burn has been cleansed the surgeon or surgeons change gloves and gowns. Using sterile instruments, skin tags and blisters are removed from the surface. Excision is *not* carried out at this time. This is simply a cleansing process and removal of epithelial tissue loosened by the burn.

Open vs. Closed Treatment

The patient is now ready for whatever type of surface treatment the surgeon elects. For several years a controversy raged, in a way, between advocates of open and closed treatment. Actually both schools of therapy were after the same result—namely, the closure of the burn surface, and its protection against secondary contamination. The closed school claimed that the open surface invited bacterial invasion; the open school claimed that such a surface soon closed itself by coagulation of exudate. Wallace has pointed out that both methods strive to secure a pellicle or crust under which the superficial and deep dermal burn will heal. The full thickness burn, as Wallace has pointed out, has a crust already of necrotic skin which should be kept dry. However, such a burn is usually surrounded by partial thickness areas or intermixed with them.

Certain body areas are almost always treated by exposure—the face and neck, and perineum—since dressings here are either difficult, as on the face and neck, or constantly soiled and wet, as on the perineum.

I do not wish to go into the argument in detail any further than to state that in my opinion open care must always be a hospital procedure and requires very careful nursing if it is to succeed. Circumferential burns are very difficult to care for, since they require frequent turning and special equipment. Under no circumstances should the hands be so treated. While open treatment seems to have been revived during a search for a treatment which would be applicable in case of mass casualties, it seems to me that this is just the place where open treatment would not be applicable. Finally, it has seemed to me, in cases which I have seen which have been treated by the open method, that this is a very dangerous method in untrained hands. It is not a method of neglect, but calls for as much or more meticulous observation than the closed treatment.

The closed treatment consists essentially in the application of a thick absorptive compression dressing over the burn area and beyond. Whether or not the compression adds anything to the dressing is a matter of controversy. We have thought that it might help to minimize the edema which occurs at the site of the burn. Many have denied this and experimental work fails to prove this effect of the compression. We feel that the compression does favor absorption and helps to keep the part splinted. It is a very comfortable dressing and if watched to see that it stays snug, requires little other attention. Pain is stopped almost immediately by this dressing This effect also is demonstrable when the dressing is applied as first-aid.

Proximate Dressing Material

There is some misunderstanding as to the dressing to be placed directly against the burn surface. For a long time it was customary to use fine mesh gauze thickly coated with vaseline. This led to maceration and surgeons gradually reduced the amount of vaseline in the gauze until finally it has come to be used either without vaseline at all or very lightly impregnated. We have found that rayon is excellent directly over the burn. A single layer, if lightly moistened with saline so as to make it conform to the surface, makes a covering that is transparent and is so fine meshed that granulations cannot grow up through it.

The absorptive layers may be made up of fluffed gauze, covered with abdominal pads and help in place with woven elastic bandages. There are now available burn dressings in various sizes, made up of cellucotton between gauze sheets, much like gigantic abdominal pads. These large burn dressings can be applied to any large surface very quickly—a whole upper or lower extremity, the abdomen or entire trunk—and save a great amount of time both in initial dressing and in later dressing care.

Immobilization of the burn area is accomplished by means of the bulky compression dressings plus splints on the extremities. It is essential to splint the parts in functional position. Foot drop or flexion contracture of the knee should never be allowed to occur. The hand must be carefully dressed on a splint in the position of function, or grasping position. Digits must be kept separated to prevent maceration.

With local care completed and general management of the physiologic disturbance under way, the initial stage or phase of burn care is completed. At the end of 48 hours the patient has usually passed the stage of shock or of fluid loss into the tissues, and diuresis starts. Intravenous fluids may usually be discontinued at this time and the surgeon can turn attention to the nutritional phase of general care.

Nutrition

By this time the patient is usually able to eat. A diet rich in protein, 150 to 200 Gm. daily, is given. In order to get this much protein in along with several thousand calories of carbohydrate and fat, interval feedings of protein hydrolysate are needed. The patient also needs large amounts of vitamins, especially of vitamin C, which may be administered in doses of 500 to 1000 mg. daily, along with one of the multivitamin preparations. It is not enough simply to order the high calorie-high protein feedings. It is neecssary to see that the patient actually consumes it. In some very severely burned patients, especially in children, it is often necessary to tube feed by nasogastric drip. This method of feeding will often persuade a lazy patient to eat normally.

Blood, which was given quite liberally during the first few days, is now given once or twice a week, the amount determined by keeping an eye on the red count and hemoglobin determinations. Secondary anemia is sure to develop in the severe burn, and while it cannot be prevented, it can be ameliorated by frequent transfusions. It will not subside until the burn area has healed. This tends to create a vicious circle. If the patient remains anemic the coverage of the surface with grafts is very difficult, since grafts will take very poorly. Until the surface is healed, correction of the anemia is difficult, if not impossible. Hence, it is imperative that the surgeon be very aggressive in combatting the nutritional disturbance and likewise in covering the burn surface.

Burns involving the face and neck are prone to lead to edema of the pharynx and larynx. These patients must be watched very carefully in order to detect development of laryngeal obstruction. Tracheostomy carried out early may be a lifesaving measure.

Dressing

The burn is examined on the fifth to eighth day, depending somewhat on the site of the burn, and the probability of deep, full thickness loss. Burns of the face, if they have been dressed, are usually uncovered by the fourth or fifth day, and are left uncovered unless there is full thickness loss. Burns of the hand are dressed about the same time, especially if third degree burning is expected, and if the patient is a probable candidate for skin grafting. These burns may often be excised on this day and skin grafted at once, since they may be operated upon in a bloodless field. Excision and grafting may be carried on with a minimum of blood loss.

Other burns are usually dressed by the seventh to ninth day. The initial dressing is taken down to the primary layer of fine mesh gauze. The surgeon can usually determine the extent of third degree loss without actually removing this final layer. The black hard skin of complete necrosis is easily distinguished and also the areas of wet necrosis with borders of partially separated skin. At this time the surgeon makes his decision as to the procedure to be followed in finally closing the wound. The problem is: first, is there only second or deep dermal injury, or second, is there full thickness loss? If the injury is only deep dermal, the dressings are simply reapplied and in another week to 10 days complete healing may be anticipated. If, on the other hand, full thickness loss is present, the surgeon must decide how he will remove this dead tissue, and how the resultant defect will be covered. With only small spotty areas of third degree loss it may be satisfactory to permit these areas to slough off and epithelialize spontaneously. Occasionally fairly good sized areas may be dressed every second day or so, and the slough permitted to separate. Free skin graft may then be placed over the defect. This decision of permitting slough to separate spontaneously, however, prepares a trap into which the surgeon may fall and which may lead to many weeks of delay in closure. At each dressing the amount of tissue removed is always less than had been hoped for, and what looked at first like a matter of a week, or at most 10 days, may stretch out to three or four, or more weeks.

Another hazard which waiting may bring with

it is that of converting areas of deep dermal burn into full thickness burns. The danger of the introduction of infection during the many dressing changes which may be needed is always present and the area of deep loss may be increased several fold. Hence, judgment as to permitting or encouraging spontaneous separation of slough must be very critical and not to be taken without full realization of its possibilities.

Hastening Separation of Slough

If the surgeon elects to permit spontaneous separation, the wound is dressed each day or every second day. At each dressing change the necrotic tissue that has separated since the last change is snipped away with scissors and a fresh compresion dressing reapplied. The dressing next to the burn surface is saturated with normal saline or with Dakin's solution. It is not entirely clear whether Dakin's solution promotes separation of slough, or whether it is just the moisture and compression that is helpful. This matter of daily dressings however is likely to prove a bomerang, since each day the surgeon hopes to find all necrotic tissue separated, only to be disappointed. At the same time the patient's threshold of pain gets lower and lower until he comes to dread the approach of the surgeon. Added to this is the increasing possibility of adding secondary infection and the prolongation of the period during which the wound remains open. All in all, the matter of frequent dressing changes for slough removal is a rather unfortunate decision in most instances.

Removal of slough by enzymatic debridement will probably come into its own some time in the future. The majority of surgeons who have had extensive experience in burn care have not yet accepted this technique. It is something which resembles nature's own method of slough removal, and as such should be ideal. At present these techniques are not perfected.

The most rapid method of slough removal is that of surgical excision. This is carried out on the fifth, to seventh or eighth day after the burn, which is about the first time the surgeon can accurately assess depth and extent of the burn. The surgeon, by this time, will have carried out the first dressing down to the initial layer of fine mesh gauze. It is sometimes advantageous, especially in children and apprehensive patients, to carry out this dressing under anesthesia. Things may be set up for slough excision at the same time.

Excision

Excision is done under a general anesthetic and with blood available since the procedure is likely to lead to a fair amount of hemorrhage. Sloughing tissue is excised with a knife, trying to keep just at the line of liquefaction between skin and subcutaneous tissue—or whatever the depth of burn loss may be. The procedure is not easy and the surgeon should resist the temptation of excising too widely. It is usually better to excise too little than too much, since after the bulk of dead tissue has been removed, the remaining tags will be found to have separated spontaneously by the time the patient is brought back to surgery a few days later, for skin grafting.

We have lately been using an electric dermatome for this excision, following the suggestion of William Snyder. The machine is set rather deep and the necrotic tissue may be removed in large sheets. We have found that it is usually necessary to go over an area two or three times before all deep slough is removed. This leaves an exceptionally fine surface for grafting.

Grafting is not often feasible at the time of the excision, largely because of the bleeding which occurs from the cut surface. It can lift the graft from the bed. Immediate grafting very frequently is possible on the hand. Here the surgeon can work under tourniquet control with a blood pressure cuff. Grafts may be laid over the surface and pressure applied before the cuff is released.

Ordinarily, however, it is best to apply a compression dressing after excision and bring the patient back for skin grafting two or three days later. By this time the surface will have cleansed itself, and bleeding will have stopped.

Grafting

It may be that the area to be covered is too large to excise at one time and that donor sites for proper amounts of skin are not available. The surgeon then will excise slough from only as much of the burn as he can reasonably hope to cover with available skin. Under these circumstances he will choose certain areas which should have priority in coverage. Such areas as face, hands and flexor surfaces of joints should be grafted first. Donor areas may be used over again if they have not been cut too deeply.

The use of homologous skin grafts is restricted to patients who, for one reason or another, cannot at the time furnish their own skin grafts.

This may be occasioned by the generally poor condition of the patient. Frequently such a patient may be a child, who could not withstand the additional trauma of graft removal but whose large burn desperately requires coverage. Homologous grafts under these circumstances are lifesaving, and should be applied. It is understood, of course, that these grafts are not permanent but require replacement later on. They may survive for several weeks or a month or more, but eventually they slough off.

The use of cadaver skin for homologous skin grafting has been a real advance in this phase of care of the seriously burned patient. We are especially indebted to Barrett Brown, of St. Louis, for this procedure and for working to establish it. Freshly removed cadaver skin may be used at once or preserved in the refrigerator at ice-box temperatures for several weeks. Studies are progressing in methods of preserving the skin for longer periods of time and when such are perfected, skin banks like bone banks will become S.O.P. in many hospitals.

Resume

I have tried to present the care of burn as a problem in the management of an open wound. It has not been my intention to deny the very great importance of the advances made in the general management of these cases. It has semed to me, however, that the surgeon may get so involved in the intriguing physiologic disturbances that may follow a large burn that he forgets the important principles of open wound care. Care of the burn tends to become a laboratory study in blood chemistries, the meaning of which may not always be clear. It has seemed to me also that open treatment is too often accepted as an easy way out of a difficult situation. In good hands, as has been reported from a number of clinics, open care yields excellent results. But open treatment is not a method of neglect, nor is closed treatment a simple matter of "cover up and forget." Either treatment, whichever the surgeon elects, will yield good results if it is carried out carefully and correctly.

I have said nothing about tetanus protection which should be given, of course, in most burns. It has seemed unnecessary to suggest that antibiotics may be indicated in many instances. However, they are given as commonly as aspirin nowadays. Their value cannot be denied. However, I think they may lead us to be a little less careful in our aseptic technique. The increase in hospital infections, both here and abroad, is evidence of this, and the penicillin-resistant staphylococcus is a valuable test of it. •

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Serum Glutamic Oxalo-Acetic Transaminase and Lactic Dehydrogenase Levels and Their Clinical Significance

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Two enzymes can now be used to improve diagnostic accuracy in myocardial infarction and several other conditions. Final place of these tests in medicine is still to be determined but much is now known. There are hints that they may be useful in detecting presence of neoplastic disease.

Development of the use of enzymes has a long and complex history extending over some 36 years. It need not be recounted here except to note that the first enzyme was crystallized in 1926. Rapid progress followed with the discovery that enzymes were protein in nature and their so-called catalytic activity had to do with the chemistry of proteins.

In 1938 Braunstein and Kritzman discovered transaminase, later purified by Cohen who postulated the probability of transaminization of amino-acids. Early determinations were difficult but Cammarata and Cohen in 1951 devised a photometric method leading in 1955 to an accurate and reproducible method by Karmen *et al.* for transaminase values in human serum. Advances in chemical techniques, and particularly the development of photometric methods, allow clinicians to broaden their viewpoint in several fields.

Other enzymes related to various tissues have come along rapidly but we will consider only two today—namely, lactic dehydrogenase and glutamic oxalo-acetic transaminase.

It is our purpose to discuss the diagnostic value of these two enzymes with particular relationship to myocardial infarction and the differential diagnosis of other conditions as well—some occasionally confused with infarction, and some not.

It is fair in the beginning to state that both enzymes occur in liberal amounts in heart muscle but also in the kidney, skeletal muscle, liver, pancreas, brain, lung, and spleen. More particularly they occur in liver, skeletal muscle, and kidney in addition to the right supply of both SGOT and LDH in heart muscle, the former being the more active in that tissue.

Both SGOT and LDH occur in normal human sera within reasonably consistent ranges. With certain diseased states, noted below, their activity rises sharply in serum determinations made at appropriate time intervals and falls back to normal with recovery. This behavior in the sera of patients with myocardial infarction has strong diagnostic import.

SGOT is measured in a somewhat more complicated fashion than LDH. We have used the method of Karmen *et al.* (1955). Decrease in optical density (brought about by conversion of reduced diphosphopyridine nucleotide—DPNH—to diphosphopyridine nucleotide—DPN) of the final solution of agents as viewed in a Beckman D. U. Spectrophotometer at 340 millimicrons is expressed by the rate of fall in units per milliliter per minute, 1 unit being a decrease in density of .001. We have selected 40 units, as

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have others, as the dividing line between normal and abnormal.

If calculated in this fashion, the SGOT activity for normal sera will run in a range from 5 to 40 with a mean of 20 and a SD±7. It is important to remember that all values in the literature should be compared on a similar basis. Confusion has already arisen in this regard.

On the other hand, determination of LDH is simpler and quicker and of equal value with the exception of certain liver affections. Lactic dehydrogenase catalyzes the reversible reaction as stated by White.

pyruvic acid + DPNH ⇌ lactic acid + DPN

Pyruvic acid and DPNH are used as substrates since the reaction favors lactate formation. This reaction is carried out in a .1 molar phosphate buffer solution at *p*H of 7.8. Therefore, only three solutions are used besides the serum and after setting these up, control readings are taken in the Beckman at 340 angstroms wave length; the solutions are incubated one-half hour at 38 C. and read again. The change in density (brought about by conversion of DPNH to DPN) of this was taken as the LDH activity of 0.01 millileter expressed as units per millileter.

White finds the range for normal healthy people to be 25 to 100 with a mean of 59 ± 19. Our normal young people are essentially the same. We also studied 66 patients in the hospital population not having conditions apparently related to changes in serum LDH and found a range of 26-116, with a mean of 80 and SD ± 22.65. All observers essentially agree.

Myocardial Infarction

We have used both enzymes SGOT and LDH in diagnostic studies on many diseased conditions. Lately it has appeared to us, as to others, that lactic dehydrogenase is more desirable in the study of myocardial infarction for several reasons:

1. It remains elevated in serum above normal activity for a longer time after infarction, 6 to 10 days, whereas SGOT is elevated a shorter time, 4 to 6 days.

2. It is an easier test with only two spectrophotometric readings at a specified interval of 30 minutes.

Wroblewski *et al.* do not agree and find the highest correlation between SGOT and myocardial infarction.

COMPARISON OF LDH AND SGO-T ACTIVITY IN A PATIENT FOLLOWING AN ACUTE MYOCARDIAL INFARCTION

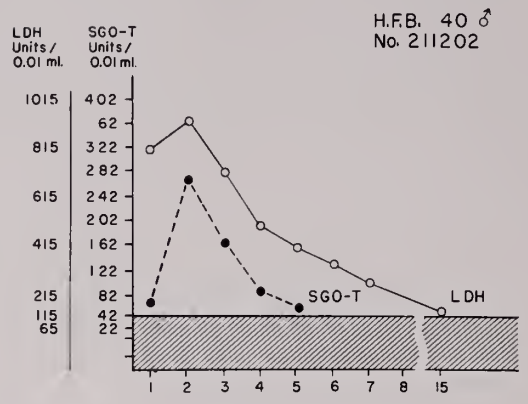


Fig. 1.

In both enzymes the curve rises promptly beginning within 6 hours after infarction and reaching a peak at about 24 to 36 hours, the curve of activity rapidly falling off in the ensuing days as stated above. This particular configuration is important diagnostically and different, as noted below, from the curve of hepatitis.

Given this behavior of enzyme activity in the serum following infarction, diagnostic accuracy for this condition is sharply improved. This is particularly true since there is good evidence that the enzyme does not rise in angina or coronary failure as noted in our own series and similar findings of others. Furthermore, the size of the infarct is roughly predicted by the elevation of enzyme activity in the serum. Both of these points have supporting evidence in the studies of Merrill *et al.* and Nydick *et al.* The latter, after opening the thorax and placing suitable ligatures around coronary arteries of dogs, allowed animals to recover and transaminase levels to return to normal following skeletal muscle injury of operation. After this the previously placed coronary artery ligatures were tied, producing varying sized infarcts and in one case ischemia without infarction of 45 minutes duration. Enzyme activity did not increase in ischemia, but was elevated in the infarction animals roughly in proportion to the size of the infarct. Study of the infarcted muscle and normal heart muscle of each animal indicated enzyme activity of infarcted muscle was only 2 to 10 per cent of normal muscle because the dying muscle had apparently lost its enzyme to the serum by leakage or increased permeability of the injured cells.

In our experience this has been a valuable test

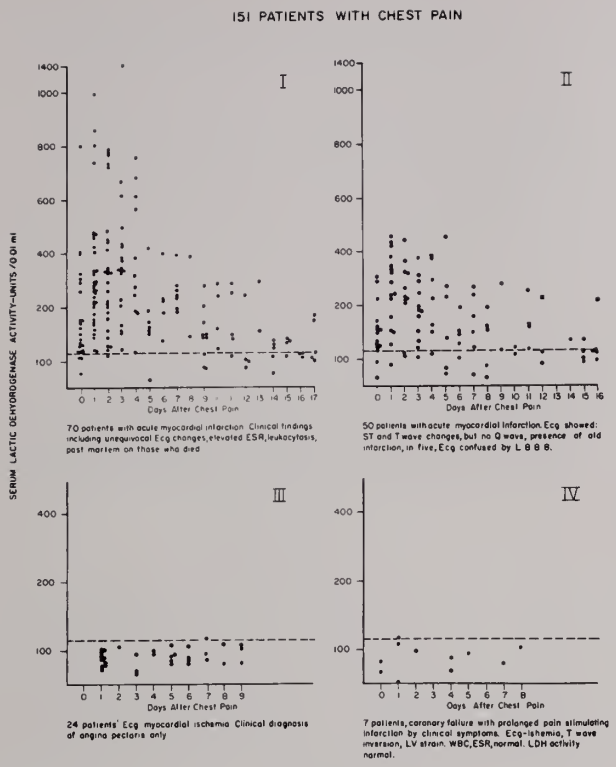


Fig. 2.

in regard to differentiation between myocardial infarction and angina or coronary failure. It may save the patient days in the hospital. It is wise, however, to have at least four tests over a period of 72 hours after the pain episode, particularly if it is prolonged.

False positive tests can, of course, occur but are generally explainable by the discovery of liver or kidney damage based on shock, anoxia, prolonged anesthesia or inflammation. Elevation of so-called "cardiac enzymes" are not then specific in the diagnosis of myocardial infarction but are extremely well correlated in rise and fall with the well-known and dramatic clinical events. Fortunately they are not elevated in angina as we shall repeatedly state.

One other difficulty exists but can be spotted easily by its dramatic expression—namely, a rapid heart rate. Serum elevations of either enzyme activity herein discussed may be elevated in almost any rapid arrhythmia—supraventricular or ventricular. Chinsky points out that this has a tendency to occur at ventricular rates of 180 or more. In one patient with ventricular tachycardia lasting over two months, we observed LDH level of 200 to 250 (normal 110) for the first month with normal figures the last month and no obvious explanation. Autopsy failed to demonstrate infarction. Other writers have noted absence of adequate explanation but some have suggested liver necrosis with inadequate circulation during a high ventricular rate.

Conversely, false negatives in true infarction are relatively rare if patients are well studied and, according to Conrad, in the case of transaminase do not exceed 2.4 per cent. This figure goes up to 8.5 per cent in inadequately studied cases where patients come in early and die before a chance of rise in enzyme activity or come in late after serum enzyme activity has subsided.

It is also stated that injection of codeine phosphate will cause elevation in some, but not all post cholecystectomized patients. We have observed no such effect from morphine injections in other patients.

In summary, it would appear that both serum glutamic oxalo-acetic transaminase and lactic dehydrogenase activity show a remarkably consistent behavior in the serum of a patient in the week following myocardial infarction.

Differential Diagnosis

Not uncommonly, myocardial infarction may be confused with pneumonia, pulmonary infarction, pleurisy or cholecystitis with cholelithiasis. Fortunately only slight increase in LDH levels occurs in pneumonia or pulmonary infarction and no increase of either enzyme occurs in cholelithiasis. In general other workers find the same for SGOT with only an occasional rise in pulmonary infection and infarction.

Another troublesome chest pain confused with myocardial infarction is pericarditis, often idiopathic benign pericarditis. Our experience here agrees with others—sometimes slight enzyme activity elevation and sometimes not. Kalmansohn and Kalmansohn found SGOT elevated in six of seven patients with pericarditis and conclude it is only of value in differentiation if normal. Apparently slight to moderate elevation of either enzyme may occur with the development of subepicardial myocarditis associated with pericarditis. On the other hand, Chinsky found no elevation of SGOT in pericarditis.

It is of interest to include at this point the striking rises of both (LDH and SGOT) enzyme activities in the sera of patients following cardiac surgery, such as aortic or mitral commissurotomy. A lesser rise comes from thoracotomy for lung surgery when the heart is not attacked and in abdominal operations.

Finally, congestive heart failure presents an ex-

pectedly confusing state. Some observers report no elevation of enzyme activity levels and some frequent elevations. This is expected for two reasons. Occasionally infarction occurs with no symptoms but heart failure, and commonly congestive failure leads to congestion of the liver which is often no doubt enough to raise enzyme activity in the serum from liver cell necrosis.

Liver Disease

Of the two enzymes under discussion, SGOT is probably the more valuable in the study of liver conditions. LDH follows a less consistent pattern, however, with values not as high in certain diseased states of the liver. SGOT appears to be more valuable in following the onset and course of hepatitis and it is said that sharp elevations occur weeks before other liver tests become positive. Wroblewski and LaDue were impressed in their study with the ability of this method to detect subclinical hepatitis. In one report, 16 of 20 patients with hepatitis returned to normal in four weeks and four required eight weeks to show normal enzyme activity in the serum, thus indicating an entirely different curve from that of myocardial infarction. Extremely high levels followed inhalation of carbon tetrachloride in two patients.

Our own experience with Laennecs cirrhosis has been varied in the case of both enzymes. In some patients, moderate elevations occur and in others the values are normal. One extremely ill patient, with advanced cirrhosis and hepatic failure for weeks, repeatedly had normal LDH values. Perhaps SGOT would have been elevated in this patient.

Observers are at variance on obstructive jaundice. Some find elevations; some do not, and some find elevations of enzyme activity, promptly corrected with relief of biliary obstruction.

Conrad summarizes the present situation by stating that most observers feel that surgical jaundice has a slower rise of serum enzyme activity (SGOT) which is longer sustained and that hepatitis has a quicker rise of SGOT activity of shorter duration. This differentiates these two to some extent but will not differentiate surgical jaundice from cirrhosis or carcinoma of the liver.

Anemias

Our own experience with five patients with pernicious anemia has been exciting and illuminating. As shown in figure 3, the LDH activity is up considerably before treatment and falls as

SERIAL DETERMINATIONS OF SERUM LDH ACTIVITIES AND PLASMA ZINC CONCENTRATIONS IN A PATIENT WITH PERNICIOUS ANEMIA BEFORE AND AFTER B_{12} TREATMENT.

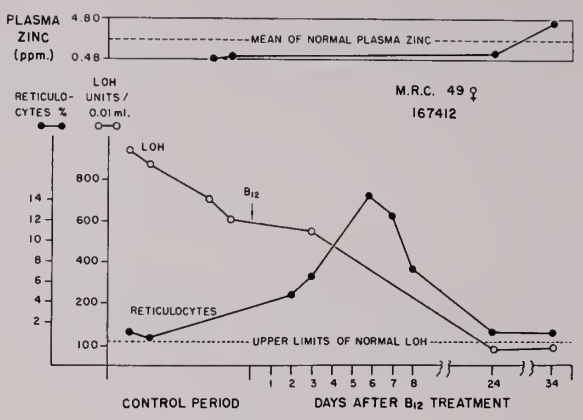


Fig. 3.

the reticulocyte count rises and the patient recovers following B_{12} therapy. Few others have commented on this phenomenon. Following the discussion of Wacker *et al.* on lactic dehydrogenase as a metalloenzyme (zinc) showing a fall in serum zinc following myocardial infarction, we have studied a patient with pernicious anemia in a similar fashion. The serum zinc, as expected, behaved in a reciprocal fashion being depressed low normal in untreated state of pernicious anemia and returning toward high normal following treatment and recovery.

The behavior of LDH in pernicious anemia is not fully explained by the hemolytic component of that disease.

Hemolytic anemias and sickle cell anemia likewise show elevation of both lactic dehydrogenase and SGOT during hemolytic periods.

Spinal Fluid Studies

Wroblewski *et al.* and others have pointed out that spinal levels of LDH activity vary independently of serum activity and are normally quite low.

Our observations agree that serum activity is normally about 10 times that of spinal fluid.

We have no strong convictions in a study of 35 patients concerning the diagnostic value of this enzyme in spinal fluid. However, Wroblewski *et al.* suggested that several preliminary observations stand out:

1) The enzyme is elevated in subarachnoid hemorrhage possibly because blood of known higher enzyme concentrations leaks into the intrathecal space.

2) In septic meningitis, enzyme spinal fluid activity is increased possibly through leakage of

plasma into spinal fluid. The enzyme activity falls with improvement.

3) In patients with either intracerebral or meningeal leukemia, or lymphoma or metastatic carcinoma, lactic dehydrogenase is elevated in the spinal fluid, the enzyme coming from malignant cells bathed by the spinal fluid. This finding may prove to be of considerable diagnostic value.

No general rule applies to cerebral thrombosis. In some, no elevation exists. In others with softening of the infarction, considerable spinal fluid enzyme (LDH) elevation is seen. Much remains to be done on this subject.

Serous Effusions

Recently Wroblewski and Wroblewski have introduced an interesting study of enzyme activity (LDH) in serous effusions related to serum enzyme activity at the same time in the same patient.

Numerous observations indicate certain generalizations not yet fully worked out. Having previously demonstrated that malignant neoplastic cells contributed in vitro and in vivo to LDH activity of the fluid medium bathing the cells, they tested this principle in pleural and peritoneal effusions containing and in contact with malignant cells in patients.

Serous fluid from patients without neoplastic disease were found to have lactic dehydrogenase activity lower than plasma (or serum) of the same patient. On the other hand, effusions from patients in contact with or containing malignant cells showed an LDH activity greater than plasma (or serum) of the same patient.

This new field appears promising and, as they point out, a great deal of additional work is necessary before this principle becomes established for diagnostic purposes.

Miscellaneous Disease

A number of other diseases have been studied by us and by others. The enzyme levels are usually within normal range. Myocardial infarction, necrosis or injury of liver and kidney, pernicious and hemolytic anemias, postoperative states particularly after cardiac surgery and finally severe trauma with hemorrhage or muscle injury. Exceptions to this rule generally find their explanation in some form of unexpected liver involvement.

Mention should be made of increased LDH and SGOT activity elevation in dermatomyositis. We have seen increased activity of both of these enzymes in the sera of two patients with dermatomyositis.

In muscular dystrophy, LDH activity was elevated early in the disease in two young patients but normal in another patient with long standing disease.

Summary

We have found serum lactic dehydrogenase activity extremely helpful in the diagnosis of myocardial infarction. It is not elevated in angina pectoris. When it is elevated in other diseased states the clinical picture is generally so different as not to cause confusion with myocardial infarction. This is particularly true if a curve is established by repeated determinations over several days. The characteristic curve then becomes quite evident.

There are other diagnostic uses of both LDH and SGOT which have been discussed briefly. •

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Cardiac Tamponade

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Following a wound to the heart of any consequence, one of two things begins to happen. There is immediate production of either cardiac tamponade or rapid exsanguination.

The term *cardiac tamponade* or *acute cardiac compression* denotes interference with diastolic filling of the heart and with cardiac contraction due to increase in intrapericardial pressure. Acute tamponade may result following direct trauma to the heart, rupture of the myocardium after recent myocardial infarction, rupture of an aneurysm of the sinus of Valsalva, injury to the adjacent great vessels, or at times with rapid accumulation of fluid following infection of the pericardium. This paper will consider tamponade only as it results from direct cardiac trauma.

Those of us who are interested in traumatic injuries must agree that the mere fact that a sufferer of cardiac tamponade even is alive on arrival at a hospital makes him a potential survivor, provided our index of suspicion is sufficiently high. The purpose of this paper is to present the principal features in physiology, diagnosis and treatment of cardiac tamponade.

On considering the physiologic or hemodynamic aspect of this problem, it is noted that blood from the wound of the myocardium escapes into the relatively inelastic sac formed by the pericardium (Fig. 1). In acute tamponade this sac resists dilatation. Thus there is increasing pressure within the pericardium tending both to minimize bleeding and to collapse the chambers. The latter effect decreases filling of the heart. Pressure on the vena cava and pulmonary veins also impairs flow of blood to the heart. A reduction in the stroke and minute volume output is followed by lowered blood pressure in the peripheral arterial system where-

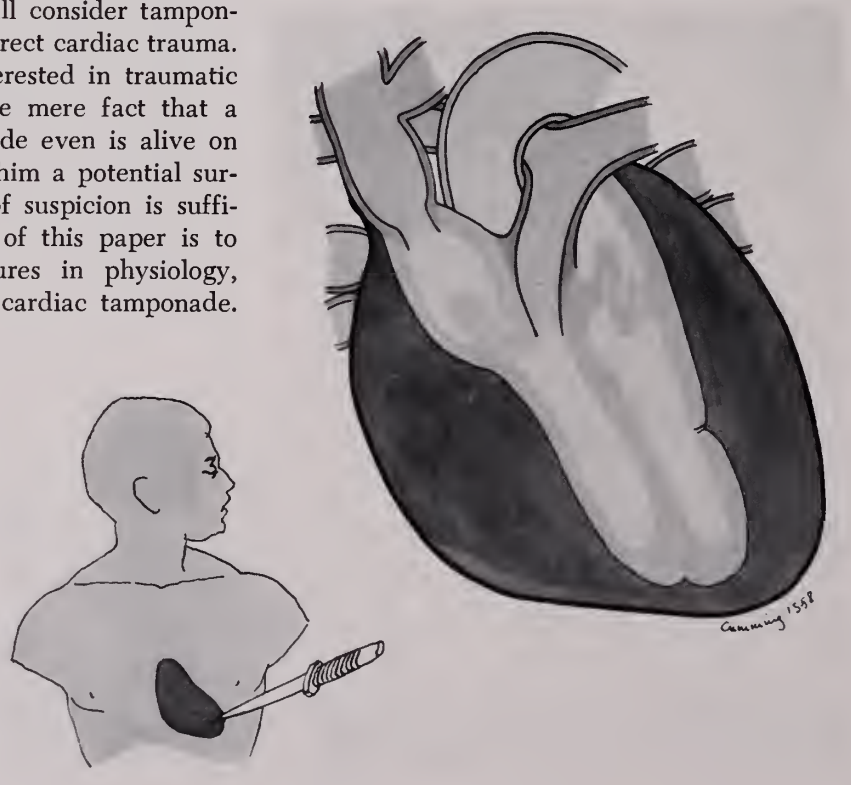


Fig. 1. Shows the filling of a relatively inelastic pericardial sac. As the volume of intrapericardial blood increases, the pressure rises, causing the chambers of the heart to collapse and obstruct the inflow from the vena cava. Thus the cardiac output decreases.

as venous pressure is increased. With further increases in intrapericardial pressure a critical level develops opposing the hydrostatic forces within the heart and great veins. The ventricles are unable to dilate during diastole and obstruction to the inflow of blood occurs. With elevation of intrapericardial pressure, there not only is increased pressure in the right atrium but also in the left atrium and pulmonary vein. Pressure rises to the same magnitude in all three, showing that the right and left side of the heart are affected simultaneously and equally by progressive increase in intrapericardial pressure. Thus adequate ventricular filling is impossible because of the decreased or absent pressure gradient between the intracardiac and intrapericardial pressures. Furthermore, forceful contraction cannot occur because of insufficient lengthening of the myocardial fibers. These factors are manifested by elevated venous pressure and decreased cardiac output.

Volume of blood found in the pericardial sac in cases of acute tamponade varies with size of the heart, size of the sac, and distensibility of the sac. Blalock and Ravitch,[1] reporting a series of cases treated successfully by aspiration, found the aspirated volume to vary from 12 to 305 cc. In some experimental work done in dogs by Sawyer, Johnston and Lambeth[2] it was found that approximately 60 cc. of fluid injected rapidly into the pericardial sac of a 12 to 14 Kg. dog would cause the right atrial, the pulmonary capillary, and the intrapericardial pressures to be nearly equal. All pressures were in the vicinity of 20 to 25 mm. of mercury. If an average of 100 to 120 cc. were injected, cardiac stand-still occurred. In the dog the pericardial sac is thinner and more distensible than in the human.

Diagnosis

Speed in making the diagnosis is of primary importance in management of cardiac tamponade. Wounds in the vicinity of the heart must be suspected. Plotting the course of missles may lead to the suspicion of cardiac injury and to an early diagnosis. A patient with cardiac tamponade will arrive in shock out of proportion to the obvious wound. Usually the classical Triad of Beck (Fig. 2) will present itself in the form of low or falling arterial pressure, high or rising venous pressure and a quiet heart. The patient will be bathed in perspiration and usually will be in varying degrees of delirium or wild excitement. Acute alcoholism is often present and that in itself will confuse the clinical picture. The pulse rate is surprisingly slow unless there has been considerable hemorrhage into the pleural cavities or to the outside. The pulse, if any is detectable, will be paradoxical—that is, have decreased amplitude during inspiration. This is due to the fact that during inspiration there is an increase in pulmonary vascular capacity and consequently a decrease in venous return to the left heart. Thus the combination of enhanced pulmonary capacity and reduced venous return during inspiration causes reduction in left ventricular filling and output which in turn is reflected in a reduced size of the pulse or pulsus paradoxus. Further evaluation will reveal decreased or absent cardiac pulsation as seen on fluoroscopy. The heart shadow may or may not be enlarged on fluoroscopy or chest x-ray, depending on the amount of bleeding into the pericardium and the amount of sac distention. Pulmonary evaluation would show decrease in vital capacity and circulation time would show impairment. An electrocardiogram may show signs of pericarditis and later of myocardial infarction, depending on size and location of the wound.

Treatment

Presumably most patients who arrive at the hospital alive after cardiac injury have a situation compatible with life, at least temporarily. Thus it is imperative for the attending physician to recognize the condition immediately and to evaluate the situation as to type of therapy to be instituted without delay. There are two possible forms of treatment to be considered.

Aspiration of the pericardial sac may be done by a number of methods and routes (Fig. 3). Most physicians prefer the apical route. A short bevel 18 gauge needle attached to a three way stop cock on a 50 cc. syringe is inserted in the left fifth interspace. The needle is cautiously directed porteriorly and toward the spine while maintaining suction on the syringe. Should the needle be felt to strike the heart, it is withdrawn a short distance. Aspiration is continued until no more blood is obtained. Another popular approach is to use a 16 or 18 gauge spinal needle and insert it through the skin just to the left of the xyphoid. It is directed upward just beneath the sternal margin until the pericardial sac is entered. The needle will be felt to penetrate the sac as one feels the penetration of the dura in doing a spinal puncture.

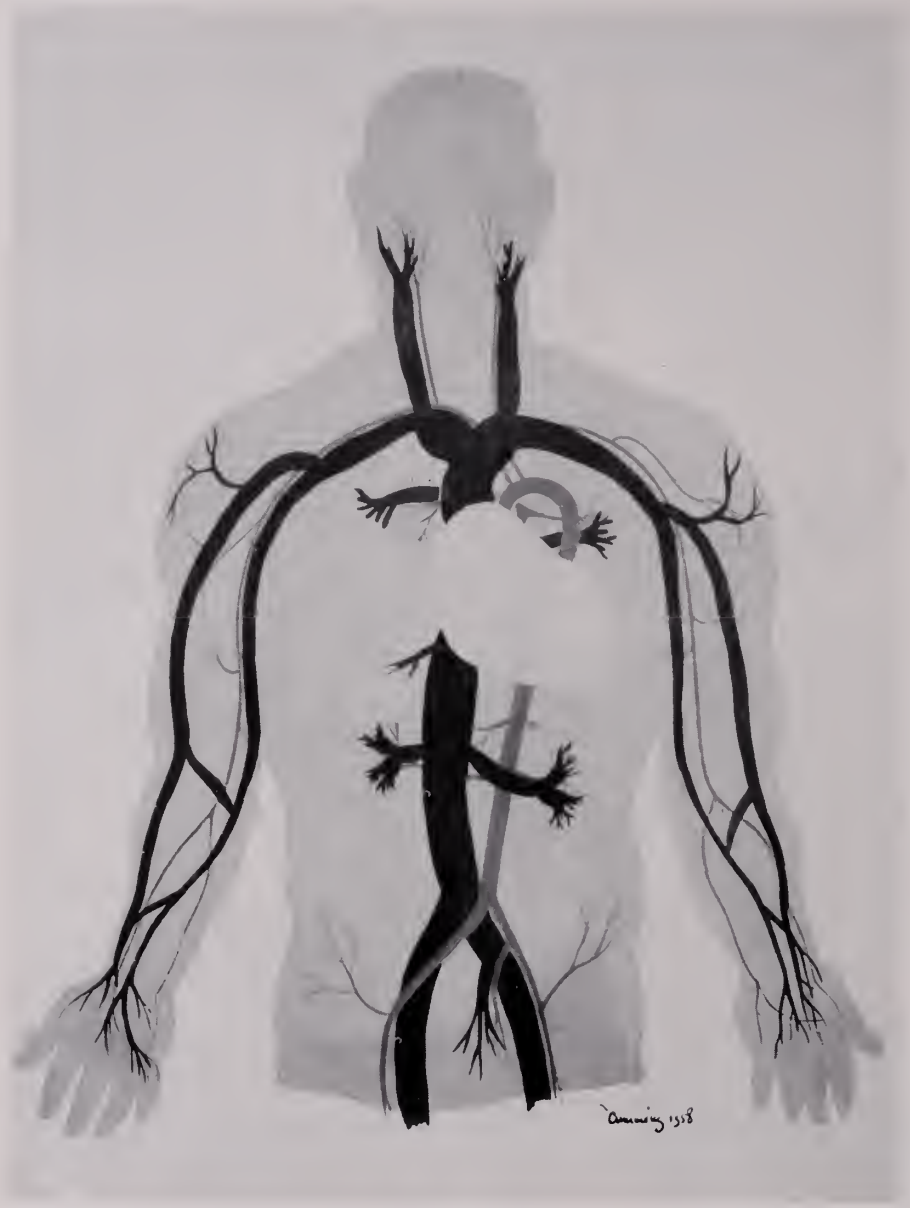


Fig. 2. Illustration of the classical Triad of Beck — the low arterial pressure, the high venous pressure, and the distant heart.

A more positive approach, considered by many, is the surgical attack. Again several approaches may be used. A C-shaped incision with resection of the fourth, fifth and sixth costal cartilages and removal of a centimeter of the sternum gives adequate exposure of the heart. Adequate exposure may also be obtained by resecting the costal cartilage of the fifth rib with a segment of that rib, then transecting the cartilages of the adjacent fourth and sixth ribs. After gaining exposure, the pericardium is incised longitudinally and a finger is placed over the laceration until interrupted 2-0 silk can be placed in the myocardium. Care must be taken not to ligate any of the major coronary vessels. The heart must be examined for multiple wounds, such as entrance or exit wounds. The pericardium is loosely approximated to allow decompression into the pleura and the pleura is drained by means of an inter-costal tube connected to an underwater seal.

The ancillary supportive measures in either the conservative aspiration approach or the direct surgical approach are difficult to evaluate.

Probably the best evaluation has been done in animals by Cooley and Brockman.[3] They evaluated intravenous fluids, drugs, respirators and anesthetic agents in a group of experimental animals with controlled, induced cardiac tamponade. They found that infusions increased venous return to the right heart and so were beneficial even if they increased venous pressure and pericardial pressure. Drugs such as caffeine, Coramine and Metrazol had no effect. Adrenalin and ephedrine were both effective but ephedrine seemed best since it had more effect on direct myocardial stimulation and peripheral vasoconstriction.

Norepenephrine, primarily a vasoconstrictor, given in a 4 per cent solution doubled the blood pressure. It produced venous and pericardial pressure increase but the animals withstood a pericardial pressure of 100 to 200 per cent greater than the predetermined critical level. In testing the respirators, Cooley and Brockman noted that a constant positive pressure respirator produced a drop in blood pressure and acted like a tourniquet. However, with positive-negative pressure insufflation there occurred a rise in blood pressure. Of the anesthetic agents used, they found that ether and nitrous oxide were best, whereas barbiturates had adverse effects and should not be used.

Pericardial aspiration is the most important initial treatment for cardiac tamponade. Facilities for open operation should be held in readiness, but it appears that with most wounds which cause cardiac tamponade, and are not immediately fatal, aspiration alone will suffice. It is generally conceded that the administration of fluids, blood and plasma is an important supplement.

Reported mortality rate from wounds of the heart treated by operative means is high. Most deaths have been ascribed to effects of the injury itself, but a good many are due to untoward incidents during the operative procedure or to complications which followed. However,

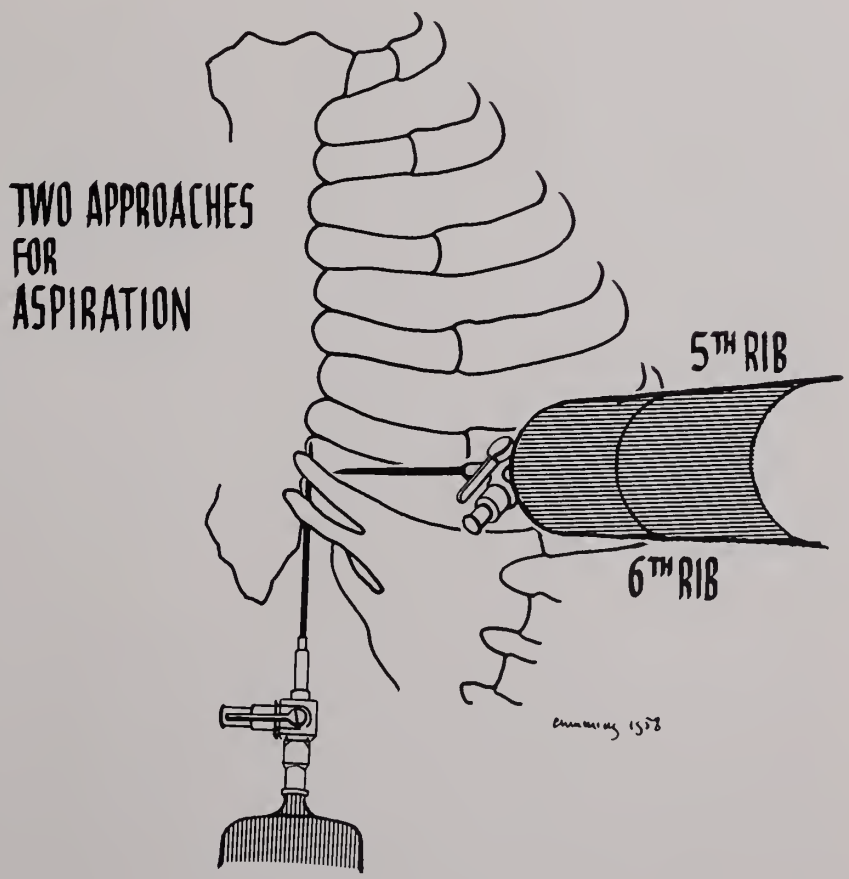


Fig. 3. The apical and the paraxyphoid approach to pericardiocentesis.



Fig. 4. Case 1. LEFT: Portable x-ray taken before pericardiocentesis was done. Note size and shape of the cardiac shadow. RIGHT: X-ray taken three days after aspiration.

in recent years there has been an improvement in mortality associated with operative treatment. In 1944 Linder and Hode[4] reported mortality of 43 per cent in 28 patients treated by operative means. An encouraging improvement is shown by Elkins[5] who reported mortality of 42 per cent in 38 patients in 1941, but only 22 per cent mortality in 23 patients reported in 1944.[6] More recently Jordan and Wilson[7] reported 30 cases of stab wounds of the heart. Twenty-four patients were treated by surgery. Three of these died, two in fibrillation and one due to ligation of a coronary vessel. Three were treated by aspiration and lived. Three received no treatment. Maguire and Griswold[8] reported a series of 33 patients with mortality rate of 8.3 per cent for those who lived 20 or more minutes after reaching the emergency room and who were treated. Ten died in the first 20 minutes.

In evaluating the methods of treatment it is well to remember that isolated unsuccessful cases are usually not reported, and also that the more complicated cases are the ones usually subjected to surgery. However, the question arises whether or not the total of successful end results would not be greater if a more conservative policy in regard to immediate operation be adopted in those instances in which there is no active bleeding through the chest wound or into the pleural cavity. In other words, is one not warranted in delaying operation and in using non-operative means, including aspiration, in those instances in which the patient's symptoms are due to tamponade rather than continued active bleeding? If blood reaccumulates rapidly following aspiration, it is agreed that exposure and suture of the heart wound is indicated. If more than one aspiration is necessary, one should allow 15 to 20 minutes between tappings in order that the chances of closure of the wound by clot may be increased.

CASE REPORTS

Case 1. A man, age 32, was admitted as John Doe. Emergency room admission note: Patient enters comatose with multiple stab wounds. Clothes soaked with blood. Physical examination: Patient cold and sweaty. Pulse and blood pressure unobtainable.

He was admitted directly to the surgical floor where he was found to be cold, clammy and responded only to pain produced by orbital pressure. He had a laceration on the chin, left upper arm, left groin and just below the xyphoid. Blood pressure was 45/35. The pulse, when obtainable, was 70 and paradoxical. Heart sounds were faint, but present. Only the first heart

sound could be heard. The chest was clear to auscultation and the heart was not enlarged to percussion. Neck veins were distended. A portable chest x-ray was taken and revealed an enlarged cardiac shadow (Fig. 4).

A paraxyphoid pericardial tap was done and 150 cc. of non-clotting blood was obtained. The blood pressure rose to 110/80; the venous pressure dropped, and the patient became alert. A second pericardial tap was done three hours later, but only 10 cc. of blood was obtained. Improvement continued on supportive therapy. He was discharged on the seventh hospital day.

Case 2. A man, aged 23, gave a history of being hospitalized previously in a mental institution because of episodes of severe depression. He stated that on the day of admission he had had a lover's quarrel and that he had stabbed himself in the left chest with a boning knife. On admission his blood pressure was unobtainable. He was cold, clammy and sweating, but rational and cooperative. There was distention of the neck vessels and a one-half inch wound in the left fifth intercostal space, 4 cm. from the mid-sternal line. There was a slight ooze from the wound. Heart sounds were distant and paradoxical. The rate was 60. The heart was enlarged to percussion. Portable x-ray revealed an enlarged cardiac shadow with normal appearing lung fields.

A paraxyphoid pericardial tap was done and 50 cc. of non-clotting blood was obtained. Blood pressure immediately rose to 110/80 and later stabilized at 134/82. He recovered uneventfully and on the sixth hospital day was discharged to a private psychiatric hospital.

Discussion

Pericardial tamponade is the immediate cause of death in many people whose situation goes unrecognized or in whom the tamponade develops so rapidly that death occurs before therapy can be instituted. If we assume that the associated injuries that may be present are not contributory to the course of recovery, then what are some of the complications of tamponade and its treatment?

A reduced or unobtainable blood pressure may lead to cerebral anoxia and later cerebral manifestations. Renal shutdown or liver failure may result following a prolonged reduction in blood pressure.

One of the major branches of the coronary system may be injured at the time of the initial injury or it may be injured at the time of surgical intervention. Some have been tied off at the time of placing sutures to control the myocardial hemorrhage. The result is the same as that following coronary thrombosis and subsequent myocardial infarction.

In doing the pericardial paracentesis the needle may inadvertently be pushed through the intercostal or internal mammary artery and again hemorrhage results. Associated with the operative treatment of tamponade there may occur a hemo- or pneumothorax. These are managed as in any other situation. Also it must be remembered that in cases where the myocardial trauma results from high velocity missiles, such as a bullet, trauma to muscle is much wider than the simple hole or rent. Missiles produce a concussion type of injury to the surrounding tissue. Thus, in suturing a laceration, the sutures must be placed widely enough to incorporate the injured tissue.

Emboli following injury to the myocardium are not to be disregarded. A thrombus forms over the laceration of the endocardium. Subsequently emboli may be released and lodge in the cerebrum, lung, or any part of the body, depending on which side of the heart was injured.

Infection must always be considered, especially in the operative cases. Since the situation is a dramatic one when the patient arrives, the surgeon may be compelled to disregard or overlook strict aseptic technique.

Cardiac tamponade in a patient arriving at the hospital is a condition which must be recognized promptly and treated immediately. The mere fact that the patient arrives alive may indicate that the more conservative approach of aspiration will suffice in the majority of cases. It is obvious that operation is necessary in those patients in whom active bleeding continues either into the pericardium or from the associated chest wounds. ●

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Electromyographic Studies on Patients with Chronic Headaches

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Realizing full well that it is presumptuous to try to add to the medical literature on the subject of headaches, we wish simply to recount briefly our experiences in observing and treating a large number of patients chiefly having chronic tension and anxiety reactions, complaining most frequently of headaches, and followed along by means of electromyographic studies during their contacts with us.

Wolff, Ostfeld, Becher, Friedman and others[1-6] have mentioned the use, mainly in research areas, of electromyographic studies in the headache problem. Shagass, Malmo and, of course, Jacobson[7,8] have used it in clinical and research instances. Others have used the electromyograph for studies of tension and anxiety. We have used and reported on the value of the electromyograph in clinical studies of the anxiety tension states and response of patients to drugs.[9,10]

Studies

For some 20 years we have confined our private practice in the psychiatric field to ambulatory treatment of these cases known variously as "anxiety tension states," "tension syndromes," and, as perhaps best labeled by Jacobson, "the neuromuscular hypertensions." During the past seven years we have used the electromyograph in studies of almost all patients for the following purposes:

1. To evaluate the relationship between neuromuscular hypertension and the anxiety noted in the patient.
2. To evaluate any relationship between the neuromuscular hypertension and the various physiologic or psychosomatic symptoms noted, or both.
3. To compare these electromyographic studies—considered objective studies—with our own clinical observations and the patients' subjective statements in regard to treatment progress, benefit of treatment and value of drugs.[10]

The electromyographic apparatus we use consists of electroencephalographic surface electrodes coupled to a Tektronic type 122 preamplifier coupled by coaxial cable to a Dumont cathode-ray oscillograph type 302A. Photo recordings are obtained by using a Dumont type 302 oscillographic Land camera. By means of this apparatus we may observe the moment to moment, hour to hour, day to day and beginning to end course of any patient we are evaluating or treating. We may simply observe by watching the oscilloscope or record permanently by using the camera. And by placing the scope properly we may utilize it as a means of demonstrating to the patient certain objective features of his case that previously he has had to take for granted because the physician said so, or because it was a "psychologic mechanism" and not usually thought of as observable. Jacobson has done this sort of thing previously.[8]

May I emphasize that we use this apparatus not for the detailed or intimate study of muscle abnormality or neuromuscular disease but as an objective means of studying patients with emotional distress. We employ it for those in whom

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neuromuscular tension may be considered as a primary or secondary factor (depending on one's orientation) but certainly a factor not to be overlooked, as it has been at times in the past.

Inferences

At present we have many photographic recordings from patients in chronic anxiety tension state who have been studied in various ways during treatment. In at least 500 of these patients there has been some form of headache as the chief complaint. From the studies done on all of these patients, including those with headaches, we have come to certain conclusions which we state here briefly:

1. Along with Jacobson, Shagass, Malmo,[7,8] and others we have found individual variations in degrees of neuromuscular tension with hypertensive levels in those patients making complaints.
2. Chronic neuromuscular hypertension invariably leads to muscle fatigue and spasm, as evidenced by ductility and lowered phosphocreatines.[11]
3. In the anxiety tension states the degree of neuromuscular tension and the severity of fatigue in the muscular apparatus are related directly to the degree of anxiety.
4. Most frequently the particular symptoms of which the patient complains can be correlated to increased tension and fatigue in the skeletal musculature of the specified area—i.e., pre-cordial pain is often due to skeletal muscle hypertension, fatigue or spasm in the pectoral, intercostal or diaphragmatic areas.
5. Reduction or elimination of neuromuscular hypertension (or fatigue) locally and generally in these patients, whether done pharmacologically, physiotherapeutically, or psychotherapeutically, results in some relief of symptoms.
6. No one of these agents is as effective as a combination program. The patient with chronic neuromuscular hyptertension needs re-education. Permanent relief will be obtained when he learns to live without tension.

Use

In the cases with specific complaint of headaches, we use the electromyograph in the following manner:

1. Either during the initial interview or immediately following it, we demonstrate a degree of neuromuscular tension greater than the patient had noted or could eliminate by himself.
2. Usually we are able to demonstrate that the tension or the state of fatigue is greater in the area about which the patient complains.
3. We can demonstrate, for example:

    a. That in chronic occipital headache there is tension or fatigue in the trapezius in all areas of the muscle, not just the occipital area.

    b. That in temporo-parietal aches the temporalis or auricularis muscles are at fault. (We do not mean to imply that all headaches in the occipital or temporo-parietal area are due to tension but in people with a state of chronic tension it can be shown that the chronic neuromuscular tension parallels the symptoms complained of.)

4. That as therapy progresses, the tracings show us and the patient the real gains. This puts response to therapy on an objective plane.

It is noted at this point that we have already been told, "Oh, you fellows are just using a lot of mechanical gadgets to pull psychologic tricks on these neurotic patients who will go for any mumbo-jumbo!"

Convictions

There is, of course, always that possibility. But we have tended to pursue a more logical and plausible line of thinking. We believe that the patients with so-called tension headaches actually do have chronic neuromuscular tension. Since only muscular tissue can be tense or show effects of being tense, it seems wise to demonstrate the finding to patients. Today they expect tangible evidence of what is being accomplished or of what is really known about them.

As a result of such use of the electromyograph equipment we have become convinced of these points:

1. As has been pointed out by Brazil, Blumenthal and Otheco,[12,13] a number of the head muscles are primary in the alerting reaction of the human. The eyes cock and

the head sets. These patterns are designed to aid the sense organs to receive stimuli.

2. Further, we feel that this normal pattern of reaction to environment is not the fundamental cause of the tension or fatigue. Rather, we feel that as the original contraction of any large group of muscles takes place, there is an accompanying variation in the visceral-glandular setup. Change is induced in bodily physiology and an emotional reaction takes place. In some this is pleasant, in others quite unpleasant. In this latter group there are many who because of earlier training, limited experiences or trauma, will literally try to fight it off. As they attempt to cope with environment, they bring about greater muscle tension by sheer power of will. We can demonstrate progressive tightening of muscle groups with each wave of emotional distress until tension is constant. Headache ensues. A vicious circle is established when, in turn, the patient tries to fight off the headache. Psychologically this is an obsessive-compulsive pattern. Physiologically, it can be shown that the patient is simply trying too hard with the wrong technique for control.

The same mechanism is at work in the charley-horse of the young athlete. He rushes in with muscles entirely too tight and tries too hard. The resulting muscle spasm is always treated with physical means and never considered to be neurotic or psychologic in origin. His re-education consists of teaching him how to do it correctly the next time.

Essentially there is little or no difference between that athlete and the patient with headache problems. They both mean well. They are trying too hard. They only know that they must keep fighting. They both pull the muscles too tightly and for too long a period. Distress results. We know it sounds inappropriate, but many headaches are nothing more than charley-horses of the muscles in and around the head. This includes the trapezius, the sterno-cleido-mastoid, the temporal group, the full contingent of the ocular muscles, and the levator group in the posterior throat.

Our own experiences, and especially those with the electromyographic equipment, have convinced us that in the large group of people who have chronic headaches, and in whom no tangible organic illness is found, that chronic neuromuscular tension involving the musculature of the head, neck, and related areas, is the major factor in production of the headache.

Typical electromyographic tracings are reproduced in figures 1 and 2. They show that, even when neuromuscular hypertension is general, it is highest in the area about which the patient complains.

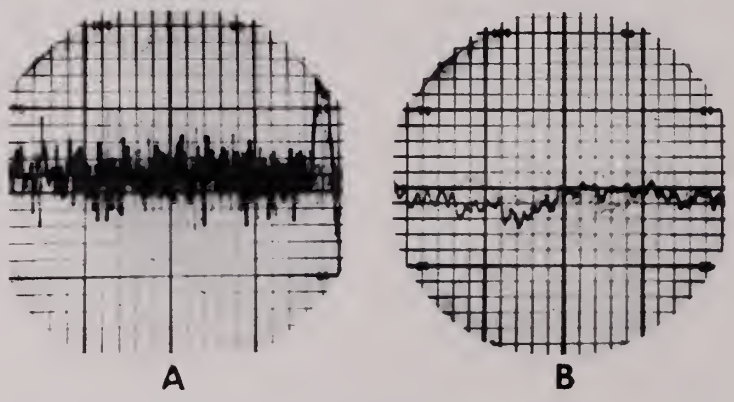


Fig. 1. Typical electromyographic tracings showing: (A) the findings when neuromuscular hypertension is present and (B) when a fair degree of relaxation is appearing.

Recently in the *Journal of the American Medical Association* we came across this commentary by E. D. Adrian,

> When Sherrington was examining the stretch reflex the general theory of feed-back circuits had not risen to its present mathematical dignity. His treatment of the subject was on a physiological level. But recent work has shown that the physiological circuits are more highly organized than he supposed. The muscle spindle, the main source of information about the forces within the muscle, does not act merely

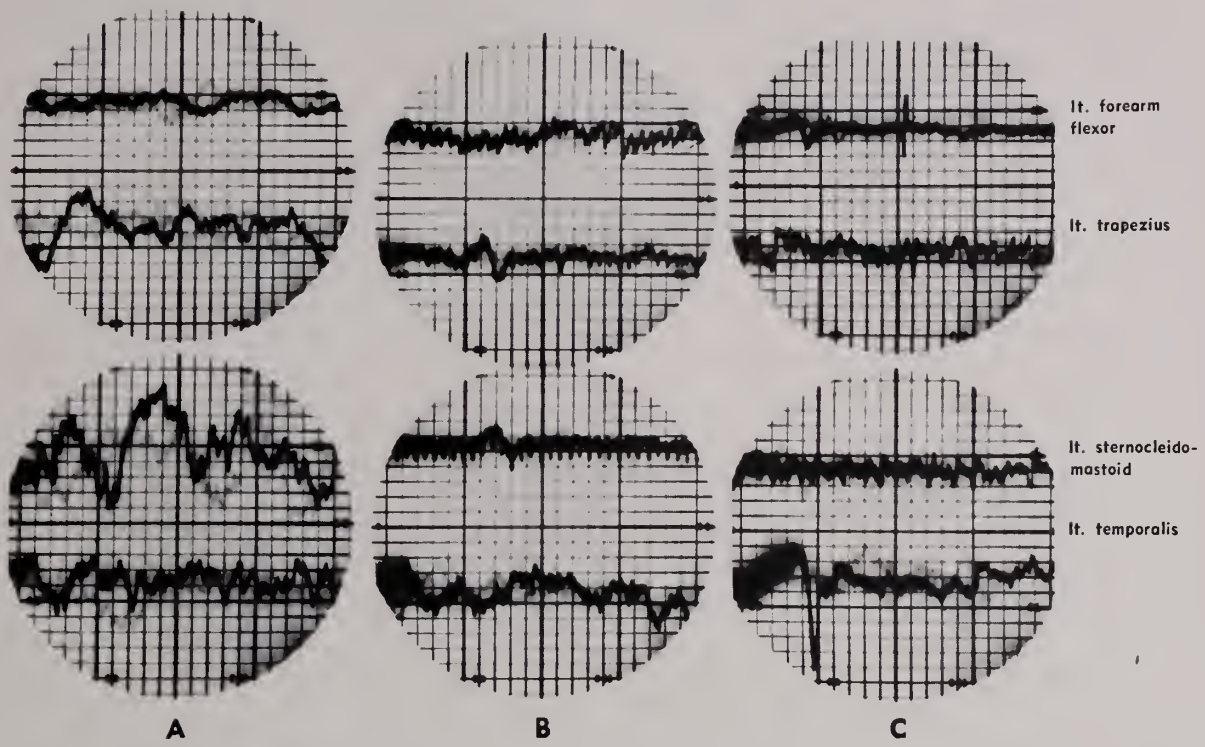


Fig. 2. Electromyographic findings in three patients, from muscle groups as noted, showing: (A) patient with severe generalized headaches, (B) patient with severe temporal headaches, and (C) patient with both occipital and temporal headaches.

as a passive strain gauge. Its sensitivity is under constant adjustment by the spinal centers, for there are special motor nerve fibres to the muscular part of the organ: these can vary the tension of the sensitive region independently of the variations of tension in the whole muscle. The operation of this additional control has been worked out in the laboratories of Granit and Kuffler and it can be regarded as yet another example of a general principle of sensory physiology, the principle that the sense organs would be of much less value to us if they were not constantly focused and adjusted by the central nervous system. They control its activity but they are themselves controlled by it and made more or less sensitive to suit the circumstances. The control may involve widespread movement: shading the eyes against too strong a light, turning the head to catch a sound, or sniffing to identify a smell: it may depend on special accessory muscles attached to the organ, and in some cases there is evidence of efferent nerve fibres running directly to the receptor apparatus. Even the flexion reflex of the spinal animal might be regarded as an example, for its aim is the removal of the pain receptors from the stimulus which has set them in action.[14]

Because of these experiences and orientation in our thinking about headaches in the chronically tense person, we have decided that a combination-type treatment serves the patient best and gives the beneficial results both patient and doctor desire.

In treatment of these cases, we feel these points exist:

1. The person is emotionally distressed and is tense, fearful, anxious, often depressed.
2. The person has real, tangible demonstrable, physical distress.
3. The person, with both these, has need for psychotherapy to alter the manner in which he is handling these and other problems.

To bring both deficiencies into a therapeutic program we usually do these things:

1. Because these people have so much fear, anxiety and physical distress, we usually give very adequate amounts of pharmacologic agents. In our own experience the best agents have been combinations of mephenesin and short-acting barbiturates and some combinations of caffeine, ASA, acetophenetidin and short-acting barbiturate. Other drugs are often needed, in dosage adequate to bring real and sustained relief.

In all cases of muscle fatigue the use of betaine and glycocyamine to raise phosphocreatine levels is urged.

2. We make adequate use of physical therapy, such as muscle stretching, proper massage and contrast baths. Recently we have found that rhythmic, peripheral stimulation of these fatigued, spastic muscles by faradic current will lead to most rapid energy recovery and give beneficial results more quickly.

3. In the psychotherapeutic area we feel that these people need particularly to:

a. Learn what is wrong. They should be told in simple language, easily understood, with a maximum emphasis on the physiologic mechanisms taking place.

b. See it demonstrated so that it is tangible.

c. Know what can be done on a temporary and permanent basis to correct it. This, too, must be told simply and repetitiously until it is thoroughly understood.

We conduct frequent interviews in which we discuss, instruct, re-educate, briefly "analyze and re-synthesize" his pattern of life for the patient. Also, we make use of a modified type of Jacobson's progressive relaxation, which actually has more real value than is generally recognized.

Conclusions

As a result of many electromyographic studies on patients with chronic headaches, and usually with chronic tension, we feel that neuromuscular hyptertension, fatigue and spasm are the major factors in producing symptoms. Further, we feel that any treatment program for chronic headaches must be a common-sense application of many therapies integrated into a sound method. This must include adequate physical and medicinal therapy. It must also include full emotional, intellectual, and physical re-education so that tension techniques are not used erroneously by the patient to combat his own tension. It is also our conclusion that a simplified type of electromyographic equipment is useful to the physician to watch the progress of his patient, the effect of any therapy, and on occasions to study etiology of the condition. It is of significant value to the patient to allow him to see the nature of his symptoms on a more realistic level and to watch his progress with greater understanding. Any technique that does this for patients, is, in our opinion, a real aid in treatment. •

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Surgery of Peripheral Arteriosclerotic Occlusive Disease

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Tremendous strides have been taken in the surgery of chronic arterial occlusions. Prior to the era of reconstructive arterial surgery, lumbar sympathectomy was the chief surgical treatment. This is an indirect approach to restoration of circulation to an extremity since it is not directed toward the causes or the organic disease. The mechanism of action is to produce dilatation of those collateral vessels which remain functionally active in the extremity. Lumbar sympathectomy is of benefit in some cases of obliterative vascular disease in increasing the circulation to the skin and thus forestalling gangrenous changes. However, it has been demonstrated to have less benefit for intermittent claudication.

With the advent of arteriography and clinical pathologic studies performed by Leriche,[1] the true nature of chronic arterial occlusions became apparent. It was found that the arteriosclerotic process could be segmental in a vessel, such as the aorta, iliac or femoral arteries, with patent vessels above and below the damaged zone. This knowledge permitted direct approach to the occlusive process with thromboendarterectomy, to restore arterial flow. This, too, has limitations. By-pass grafts using homografts and, later, prosthetics have extended the limits of reconstructive surgery. The purpose of this communication is to review some of the knowledge of chronic arterial occlusions below the renal arteries with case reports demonstrating various procedures.

Diagnostic Considerations

When a patient comes to the office, decisions must be made as to the cause of his complaints and as to treatment. Fortunately, with chronic arterial occlusive disease, the diagnosis can be established quite definitely by history, examination and x-rays. Most patients in whom occlusive disease is considered have pains, cramps and weakness in the lower extremities or back. Many pathologic states may cause these symptoms, such as osteoarthritis of the spine, spinal cord tumors, disc syndromes, postphlebitic syndrome, neuritis and many others. None of these should be confused with chronic arterial occlusions when it is realized that in arterial obliterative disease the symptom complex—aching pain, fatigue, cramps and numbness—comes with exercise and is relieved by rest.

The basis for these symptoms is that the occlusive process develops very gradually over a period of time, with gradual reduction in the intraluminal diameter secondary to the arteriosclerosis. When this reduction of the blood vessel reaches a critical state, the pulse volume diminishes[2] and the volume of blood flow through the vessel is reduced. Thus the stenotic or blocked vessel will not permit an adequate blood flow to the extremity during exercise when the need increases.

The collateral circulation developed to compensate for the narrowing and final occlusion of the major vessel may deliver an adequate supply of blood, maintaining viability of extremities at rest and for walking short distances without developing intermittent claudication. However, the collateral channels cannot supply sufficient blood to the extremities for vigorous prolongated exercise without developing symptoms.

Careful interrogation is necessary as to how fast and far a patient can walk before symptoms develop, and how long a rest is needed to relieve symptoms. It has been noted that walking up an incline or carrying a heavy load, which increases

the demand for blood secondary to muscle work, causes symptoms to develop more rapidly.

Examination

Much has been written on examination of an extremity to ascertain the status of the circulation. Fundamentally, two items can establish the presence or absence of the arterial occlusive process. These are the examination of the pulses and the exercise tolerance test.

The aortic pulse can be felt between the umbilicus and the ziphoid. Femoral pulses should be palpated in the groin with the patient supine. Occasionally, having the patient hold his breath helps eliminate interference from abdominal movement. Popliteal pulses can be felt by flexing the knee slightly and palpating the artery behind the tibia as it goes between the lateral and medial heads of the gastrocnemius. The posterior tibial pulse posterior to the medial malleolus at the ankle and the dorsal pedal pulse on the dosum of the foot are readily accessible to examination.

It is important for the examiner to be relaxed and not to confuse his own pulsation in his finger tips with the patient's pulse. The pulses may be present but diminished, indicating partial occlusion or stenosis of the lumen. The femoral pulses may be absent and a feeble dorsal pedal or post tibial pulse may be present indicating good collateral circulation. Usually pulse of this origin is substantially weaker than that on the unobstructed side.

The second item of importance in the examination is test of the patient's ability to walk. A more accurate evaluation can be made if the examiner walks with the patient at a brisk rate, recording the number of steps or distance traversed before symptoms develop which cause limping and finally require rest. Location of the pain, numbness and cramps should be noted. It is of interest that previously absent arterial pulsations often can be felt after exercise. Most patients will have significant symptoms after walking 100 to 200 yards, depending on location and extent of disease. Patients with histories suggestive of intermittent claudication but with adequate arterial circulation will soon wear out the examiner by walking a long distance without producing symptoms.

Other indices of arterial insufficiency, such as incomplete venous filling, lowered skin temperature and trophic changes of the extremity, have their prime importance in evaluating the extent of disease once the diagnosis is established. In aorto-iliac occlusions, significant trophic changes are seldom present unless extensive arteriosclerosis involves the femoral arteries also.

X-Ray

X-ray, in conjunction with the history and physical examination, is useful in office evaluation. The anterior-posterior and lateral view of the lumbar spine will often show calcium deposits in the atheromatous portions of the aorta and iliac arteries. This may be seen in the presence of apparently normal circulation in asymptomatic patients. However, if history and examination support the diagnosis, this calcification has significance. Calcification of the aorta brings the diagnosis of arterial occlusive disease to the mind of the doctor examining a patient for back and leg pain and stimulates re-evaluation of the pulses and history. Extensive calcification in the peripheral vessels serves as a warning of diffuse arteriosclerosis to the surgeon, suggesting that difficult problems may be faced if surgery is undertaken.

Localizing Symptoms

Localization of the segmental block in the arteries can be established with the evaluation above. In chronic aortic-iliac thrombosis (commonly referred to as the Leriche Syndrome[1]), back pain and pain in the hips and thighs, with associated weakness and easy fatiguability of the extremities, are the most common symptoms.[6] Inability to maintain erection is occasionally present in the male. If the aorta is completely occluded, symptoms are bilateral. If the predominant occlusive process is in one iliac artery, unilateral claudication results. Often the femoral pulse will be absent on one side and diminished on the other, indicating disease on both sides even though the symptoms may be unilateral. Generally the arteriosclerotic changes start in the common iliac arteries and progress up toward the aortic bifurcation.[3]

In the lower extremities the most frequent site for arteriosclerotic changes of the superficial femoral artery is at the adductor hiatus where the vessel leaves Hunter's canal and enters the popliteal fossa. The occlusive process spreads from this point up toward the common femoral artery. Intermittent claudication involves all distal parts, such as the calves and feet, with aching cramps, numbness and weakness. On examination the femoral pulse will be present and all distal pulses absent or markedly diminished.

In arteriosclerosis of small vessels, as seen with

diabetes, the popliteal pulse may be present, indicating patency of the femoral vessel but distal pulses—i.e., posterior tibial and dorsal pedal—are absent. These cases are unsuitable for reconstructive surgery since the distal arterial bed is occluded. They benefit most from lumbar sympathectomy.

Prior to surgery, arteriography is performed to determine location and extent of the block and patency of distal arterial bed. As pointed out in cases that follow, arteriograms have to be interpreted in light of the clinical examination.

Surgical Treatment

Since the advent of reconstructive surgery, knowledge of the disease condition and techniques of therapy have advanced remarkably. DeBakey[4] has demonstrated that 75 per cent of his patients, with intermittent claudication as the only indication of inadequate circulation, have a satisfactorily patent peripheral arterial bed allowing restoration of the circulation. The aorto-iliac blocks are more favorable for remedial measures than femoral occlusions as they are more likely to have a well localized arteriosclerotic process and are larger vessels to operate upon. Even those patients with inadequate circulation at rest, have been operable in 55 per cent of DeBakey's cases.

In the selection of patients for operation, severe cardiac and renal disease is the main contraindication. Those patients faced with impending loss of limb are operated upon in lieu of an amputation, with the hope of restoring the circulation. The prime indication for arterial grafting has been intermittent claudication which prevents them from leading a normal life. The objective of treatment is to restore the normal pulsatile flow to the peripheral arterial bed. This should be done without sacrificing the existing circulation in the event of graft failure. Saving the collateral circulation and all patent vessels is important.

For localized blocks of the aorta and iliacs, thromboendarterectomy is suitable (Fig. 1). This procedure is less satisfactory for the external iliac and femoral vessels because of their small caliber and likelihood of postoperative thrombosis. For extensive aorto-iliac occlusions, excision of the aorta, insertion of a bifurcation graft and end-to-side anastomosis of the limbs of the graft to the femoral arteries is the accepted treatment (Fig. 2). The end-to-side anastomosis permits blood flow proximally through the iliacs left in situ to the pelvic vessels and distally into the femoral vessels.

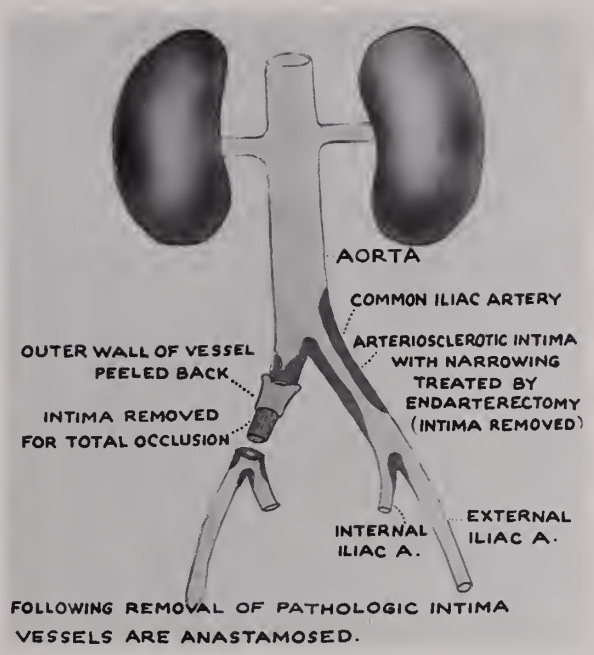


Fig. 1. Endarterectomy of iliac arteries as performed in case 4.

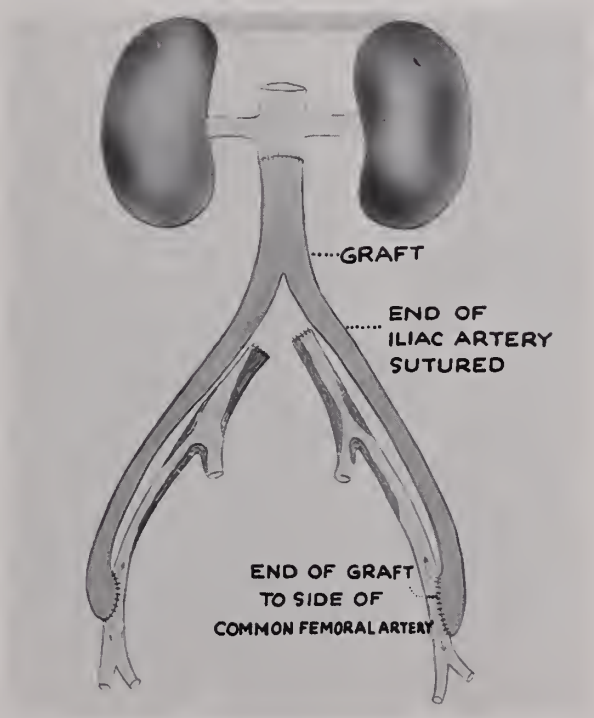


Fig. 2. Aortic resection and graft with end-to-side anastomosis into femoral arteries.

Linton[5] and Crawford[7] have demonstrated that end-to-side anastomosis is less likely to thrombose than end-to-end suture. This technique permits anastomosis of the graft to small diseased

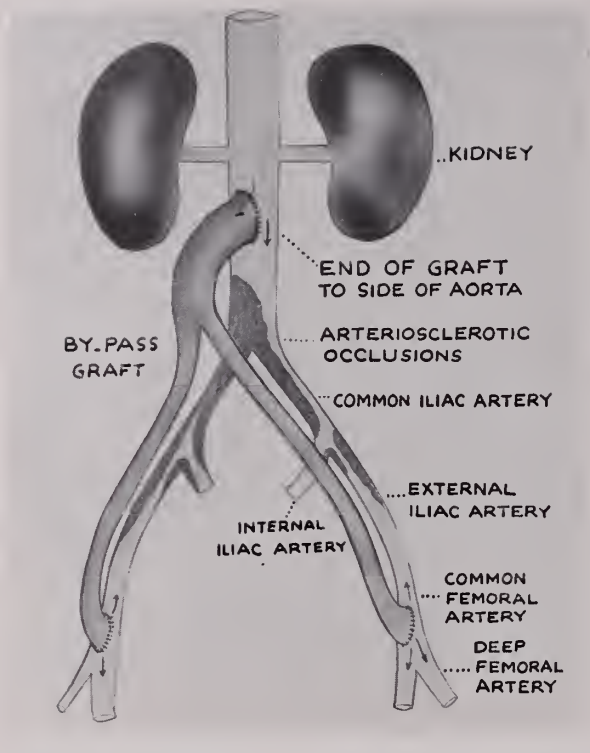


Fig. 3. By-pass graft as performed in case 3 utilizing end-to-side anastomosis.

arteries which would be impossible with the end-to-end method. Also, the occluded segment of the vessel need not be excised in the by-pass graft thus reducing trauma to the concomitant vein and saving the existing collateral circulation. The end-to-side by-pass principle can be applied to the aortic anastomosis as well as the femoral, giving a pulsatile collateral channel around the obstruction without damaging the existing circulation (Fig. 3). This is especially useful in diffuse arteriosclerosis. (See case 3.)

By-Pass Graft

In femoral artery obliteration it is the consensus of vascular surgeons that the by-pass graft (Fig. 4) is ideally suited for the small vessels. Disease in the vessel may extend from superficial femoral artery origin in the groin to the bifurcation of the popliteal. Endarterectomy over this distance involves a long incision and excessive operative trauma with significant hazard from thrombosis during the immediate postoperative period. The by-pass graft does not disturb the collateral circulation. The graft is passed down the leg by tunneling between the femoral and popliteal incisions. When the patent distal vessel is small, end-to-side anastomosis is the only type which will function. (See case 6.)

A few examples of various reconstructive procedures are presented in the following case reports.

CASE REPORTS

Case 1: This 44 year old male had had easy fatiguability of his legs and associated back pain for one year. At onset, severe intermittent claudication had been present in both legs, noticed especially as he walked up 199 steps to his job.

The only pulse palpable in the lower extremities was a faint left femoral pulse. Venous filling was normal and trophic changes were present. Just prior to operation a left popliteal embolus occurred following attempted left femoral arteriogram.

At surgery an open arteriogram was performed. Block was present in the popliteal artery. At laparotomy, complete thrombosis of the aorta from the renal arteries down to the external iliac arteries was present. The aorta was resected and endarterectomy of the proximal aorta was performed to allow end-to-end anastomosis with the aortic bifurcation homograft which was sutured into the external iliac arteries in an end-to-side technique (Fig. 2). Bilateral lumbar sympathectomy was performed. Left popliteal embolectomy was performed for the embolus occurring just prior to surgery.

Complete restoration of pulses resulted. The patient has been asymptomatic and working for the past 18 months.

Comment. Since the aortic occlusion was complete, extensive aortic resection and graft was performed. The end-to-side technique used distally allows for a larger lumen at anastomosis and is less likely to thrombose. It is of interest that he was 44 years old and that the distal vessels were free of disease.

Case 2: This 44 year old female had had aching pains in the back, hips and thighs induced by exercise, such as volley ball, and relieved by rest. Her walking ability was reduced because of weakness in the right hip and thigh. A small abrasion on her foot had been slow to heal. A faint left femoral pulse was the only pulsation in the lower extremity. There were no significant trophic changes. Just prior to surgery, complete occlusion of the aorta occurred with loss of the faint left femoral pulse.

At surgery, complete occlusion of the aorta from the renal arteries to the external iliac was present. An aortic and common iliac endarterectomy was performed with restoration of circulation to the lower extremities. Two weeks after operation the patient had pain in the left chest consistent with pulmonary embolus. She was treated with anticoagulants.

Since surgery the patient has been able to exercise without limitation, even playing 18 holes of golf without difficulty.

Comment. Thrombosis was confined to the aorta and common iliac artery with the external iliac artery free from arteriosclerosis. The outer wall was of good quality and served as a good conduit for blood.

Case 3: This 49 year old female had severe aching in the legs for one year with associated tightening in the back and right hip. The patient had had one ovary and half of the other removed at the age of 21. The right femoral pulse was barely palpable and the other poor. Faint posterior tibial pulses were palpable with exercise.

Serum cholesterol was 350 mg. per 100 ml. Aortogram demonstrated diffuse arteriosclerosis.

At surgery, diffuse arteriosclerosis had caused narrowing of all vessels distal to the aortic bifurcation. An aortic by-pass was performed with end-to-side anastomosis of the aorta to a knit dacron prosthesis (Fig. 3) and end-to-side anastomosis to the femoral vessels. Right common and internal iliac endarterectomy was done to increase the blood flow to the pelvis. Bilateral lumbar sympathectomy was performed. This patient has been relieved of previous symptoms.

Comment. This operation did not destroy any collateral branches and added to the patient's blood flow into the distal vessels. The knit dacron has ideal characteristics for this type of anastomosis.

Case 4: For one year prior to surgery this 44 year old male noticed left hip and thigh pain induced by walking. Walking up an incline or carrying a heavy load caused the symptoms to appear more quickly. No symptoms were noted in the right leg. The femoral and distal pulses were absent on the left and present on the right. Discomfort of the left hip and thigh came with walking 120 steps at a brisk rate and was relieved by rest.

At operation the aortic bifurcation and both common iliac arteries were endarterectomized (Fig. 1). The right common iliac had extensive arteriosclerosis. Because of the likelihood of further stenosis and probable occlusion, it was treated also. This patient has had restoration of his pulsations and has unlimited walking tolerance.

Comment. Endarterectomy was selected here because the disease was localized in the common iliac arteries and the external iliacs were normal. Generally the external iliac artery is unsuitable for endarterectomy because of small size and inaccessibility which makes thrombosis more likely. It is of interest that the lumen of the right common iliac was reduced approximately 50 per cent but pulses were still good in the right leg. This supports Hanovici's[2] findings that pulse volume does not change until the diameter is reduced 70 per cent or more. It is likely that the patient would have had symptoms in the right leg if he had not been limited in his walking by the occluded left iliac artery. He was informed prior to surgery of the possibility of arteriosclerosis in the right common iliac artery and permission was obtained to treat this even though he did not have symptoms. This has saved a repeat operation in the near future. Because of complications, such as thrombosis of the endarterectomy segment, the patient should have an honest presentation of the facts and the risks. If the operation is not completely successful, he will have been forewarned of the possibility.

Case 5: This 40 year old male had noticed cramps, weakness and numbness in the left leg for one year. Ten days before surgery his left leg became numb, cold, white and painful to walk upon. He was hospitalized and given paravertebral blocks with improvement in his circulation until discharge.

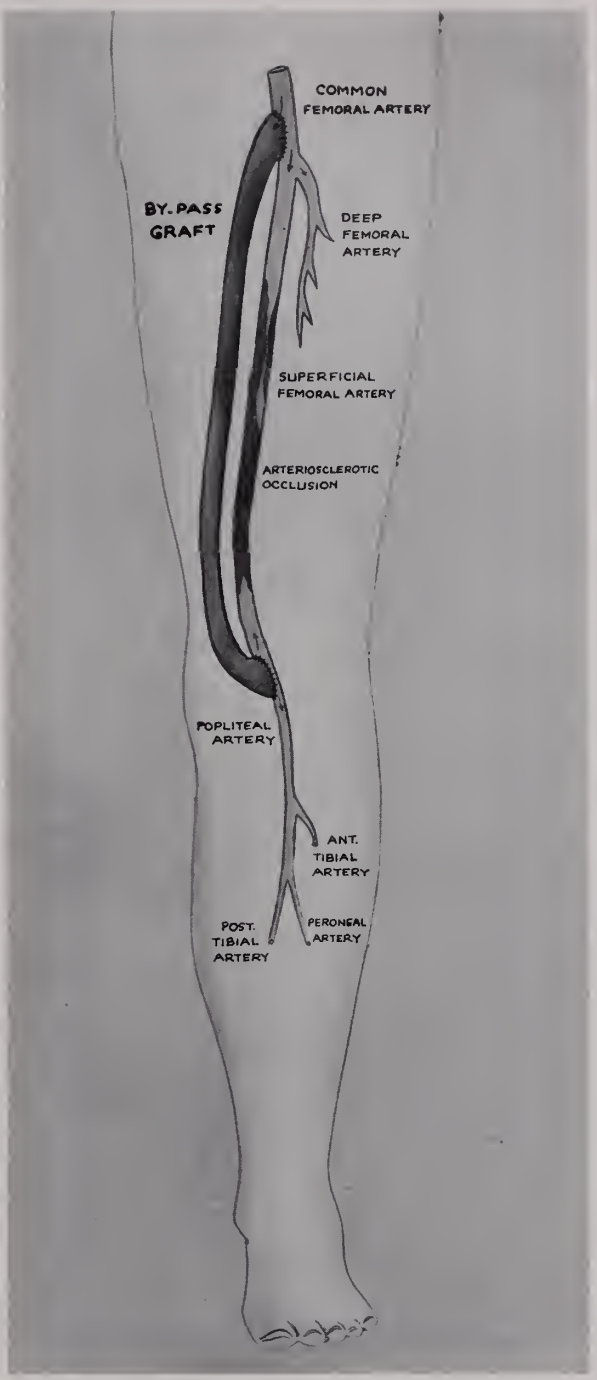


Fig. 4. Femoral by-pass graft as performed in case 6.

At age 10 he had stabbed himself in the left thigh and developed an arteriovenous fistula of the superficial femoral artery and vein. In 1938, at age 20, a physician at Hot Springs, South Dakota, performed a left femoral arteriogram demonstrating the fistula with false aneurysm. He did an end-to-end suture of the femoral artery and a lateral venorrhaphy with an excellent result for 19 years.

On examination, the left femoral and distal pulsations were absent and there was marked pallor with elevation

and delayed venous filling. The pulses in the right extremity were fair. Numbness in the left leg came after walking 40 steps and weakness with limping after 60 steps.

Aortogram demonstrated a block from the aortic bifurcation to the popliteal artery on the left with patent internal iliac and deep femoral branches. At surgery, extensive arteriosclerosis with recent clot was demonstrated. Endarterectomy from the origin of the left common iliac artery to the area of previous fistula in the lower left superficial femoral artery was performed. It was necessary to remove thickened intima from the aortic bifurcation and right common iliac because of significant narrowing. Because of extensive calcification of the fistula repair in the superficial femoral artery, endarterectomy could not be carried into the popliteal. Therefore a long, 3/8 inch internal diameter teflon graft was inserted from the common femoral to the popliteal artery in a by-pass type of graft.

Because of thrombosis of the graft, exploration was done the day after initial surgery. Clot was removed. This restored the posterior tibial and dorsal pedal pulses.

Three weeks after operation this patient walked five blocks to my office without limitation and with normal distal pulsation. Patient has returned to work.

Comment. Here endarterectomy was used in combination with a graft because of extensive length of occlusion. A long graft from the aorta to the popliteal would be likely to thrombose and all the structures between these two points would be deficient in blood. Endarterectomy was performed because these vessels were larger than usual. Blood flow was restored to the internal iliac and deep femoral branches. It seems likely that the early stress on the vessel, due to the A.V. fistula, may have induced premature arteriosclerotic changes in a patient who had this tendency.

Case 6: This 48 year old white male had intermittent claudication for six months. Severe cramp developed in the left calf after walking 100 yards. Diagnosis of arterial occlusion of the superficial femoral artery was substantiated by the findings of absent popliteal, tibial and dorsal pedal pulses. Pulsations of the left femoral artery were excellent. The right extremity had normal pulses.

Arteriogram demonstrated very small popliteal vessel distal to the superficial femoral artery occlusion which seemed too small for grafting.

Since the possibility of a patent vessel existed, popliteal artery exploration was done. A small but satisfactorily patent popliteal vessel was found. A 22 inch homograft was inserted from the common femoral artery to the open segment in the popliteal space (Fig. 4). This restored the posterior tibial and dorsal pedal pulses. Three weeks after operation the patient walked five miles without discomfort in his leg. Pulses have remained good and the patient is working without difficulty.

Comment. Exploration, even though the arteriogram suggested an unsatisfactory distal vessel, proved valuable for this patient.

Discussion

The cases sited are examples of reconstructive procedures for aorto-iliac and femoral occlusion. These patients have been in the fifth decade of life. They have been completely rehabilitated and thus able to support themselves. Each patient has had his own unique anatomic and pathologic situation requiring various techniques. Generally the by-pass graft is favored whenever possible since it is easier to perform, does not damage the existing circulation and is less likely to thrombose.

Homografts and synthetic arterial substitutes have been used in the above cases. Because of the difficulty in procurement and preparation of homografts, the arterial prostheses are favored. Excellent results of DeBakey and Crawford[8] using the knit dacron prosthesis indicate that this is a most desirable arterial substitute. Knit teflon of the Edwards-Tapp design is a great improvement over their braided nylon tubes.

Lumbar sympathectomy has been used at time of grafting on these patients with diffuse disease in the hope of opening the collateral circulation. Its greatest value is in patients younger than 50 who have a popliteal artery block and intermittent claudication. For extensive occlusions it is less effective in relieving the intermittent claudication. However, sympathectomy will improve the circulation to the skin and possibly forestall the onset of gangrene in many cases. •

Paulsen Medical and Dental Bldg., (4).

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The Fistula Is a Fine Fellow

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I do not believe that any book has ever been written on the general subject of fistulas, and I doubt if one ever will be. A fistula, by definition, is an abnormal communication from one viscus to another or to the exterior. It may involve any portion of the body. It may be relatively simple or extremely complex. Because of their pathologic features and anatomic vagaries, fistulas are not easily relegated to the domains established by modern day specialists or to the limited confines established by the various specialty boards.

Why are so many fistulas such complicated problems? The answer is quite simple when fistulas are viewed from the standpoint of etiology. In general, fistulas have four origins. First, we see those of congenital origin often following a more or less definite pattern but not infrequently deviating considerably from the classical or expected form. As Hamlet says, "Aye, there's the rub."

Second, we have fistulas resulting from unpredictable extensions of acute or chronic infection or from the relentless progress of invasive malignancy. Such fistulas do not follow any specific pathologic pattern and do not respect any anatomic boundaries.

Third, we see fistulas arising from trauma—sometimes blunt, more often sharp and penetrating. The initial injury may be trivial, such as the wound from a small knife blade, or it may be very complex, such as a bullet wound traversing one or several body cavities. These are the injuries from which obvious fistulas may form almost immediately or from which a spectacular recovery may be followed by the insidious development of severely altered physiology, such as may occur in a relatively small arteriovenous communication.

Fourth, we have fistulas resulting from surgical error—such as direct injury, recognized or unrecognized; inadequate or poor closure of a hollow viscus; disturbance of blood supply; injudicious use or abuse of foreign materials used in a surgical procedure. The list and types of man-made fistulas is, of course, extensive and a source of very great self-reproach.

On occasion a fistula may represent a happy circumstance. Thus, a biliary or duodenal fistula would be welcome as compared to a diffusing chemical peritonitis; and the rupture of an abscess into the bowel is often fortuitous and very desirable. A pancreatic-enteric or pancreatic-gastric fistula is a happy solution to a pancreatic cyst that cannot be removed and, of course, recently the construction of certain vascular fistulas has been extremely rewarding.

In approaching the problems of fistulas, great judgment must be exercised. Unfortunately, and far too often, the unwise or inadequate approach not only fails to cure the condition but renders the situation worse and even more complicated for, in general, each attempt to irradicate a fistula is more difficult than the preceding one. How well this is appreciated by those who have had to operate on thyroglossal, branchiogenic or biliary fistulas (to mention a few) operated upon for the third, fourth or fifth time.

Some fistulas, as far as the patient is concerned, can be classified as only a nuisance and the risk of operation outweighs the benefits. Such a fistula had better be left alone.

Since the operation for fistula is rarely easy, often inadequate, and not infrequently makes the patient worse, it follows that the conscientious surgeon must at times exercise judicious restraint, at other times aggressive action, and always careful planning. Then, when indicated, a well-executed operation may save life or at least make it more livable.

Several cases of difficult fistulas will illustrate the complexity of this problem.

CASE REPORTS

Case 1. A 30 year old male had had a small draining sinus in his neck since birth. Several drainage operations had been performed in childhood. The sinus presented at the anterior edge of the left sternocleidomastoid muscle and below the level of the hyoid bone. It was considered a branchial fistula.

Because the lesion was a nuisance, operation was encouraged. At the time of operation the sinus passed beneath the strap muscles on the left and then ascended in the midline. It was quite obviously a thyroglossal fistula. The central portion of the hyoid bone was removed and then a core of tissue, including mylohyoid, geniohyoid and genioglossus muscles, excised. At this point the specimen was hanging by a few strands to the right of the midline, at the base of the tongue. As these strands were divided, there was a sudden terrifying hemorrhage, which could be controlled only by local

pressure. The source of this hemorrhage was the lingual artery coursing over the genioglossus and geniohyoid. When the central core of tissue to be removed is large, this vessel can be injured easily, and when the vessel retracts, ligation is difficult at best. In this case it was felt wise to expose the external carotid artery quickly and ligate this vessel. This was done and the original dissection then completed.

On the day following operation, it was noted that the patient had a motor paralysis of the left hand. The only plausible explanation was a cerebral vascular disturbance, secondary to impaired circulation in the right common carotid artery at the time of surgery. A traction tape had been placed around this vessel prior to ligation of the external carotid and both vessels had gone into marked spasm. Fortunately, motion returned in the left hand within several wecks and full strength after several months.

To date there has been no recurrence and the final result is classified as excellent. The patient was cured of his annoying cervical fistula, but both life and limb were threatened seriously.

Case 2. A 12 year old boy was seen with an abscess in the right lower abdomen, following febrile illness of five day's duration. Despite the presence of abdominal pain, the history and physical findings were so atypical that he was treated with antibiotics by an excellent pediatrician.

Incision and drainage of the abscess was performed. A sinus tract developed following this operation, which persisted for six months. At this time a secondary operation was performed and the findings were quite remarkable. The tract extended through the various abdominal muscle layers down to a mass covered by omentum. When the latter was divided the appendix was seen to run into it. The appendix was divided at the cecum and the stump inverted. It was then seen that the mass was intimately associated with the bladder and could not be separated from it. Therefore, a portion of the bladder was removed. The mass was then freed from the right ureter. At this point the right vas deferens entered the mass. The greatest care was taken to salvage this structure for it was remembered at this moment that the patient two years previously had been operated upon for a left undescended testis and the functional status of the left testis was therefore uncertain. The vas on the right could not be dissected free, and was divided in removing the boy's disease. He made an uneventful recovery with no recurrence to date, possibly at the expense of sterility.

Case 3. A 69 year old woman was seen in consultation with a history of abdominal pain of various types and degrees for 20 years, intermittent purulent vaginal discharge and intermittent passage of gas through the urethra. Cystoscopy and retrograde pyelograms were non-revealing, but barium enema showed a fistulous tract, the nature of which was not clear. Treatment was refused and the patient was not seen again until one year later, at which time she presented herself acutely ill with high fever, chills, malaise, pelvic discharge, and still passing gas per urethra. A transverse colostomy was performed to exclude the bladder and genital tract from the fecal stream. The patient's acute symptoms subsided but she continued to pass gas per urethra. This was difficult to explain. A second barium enema was then performed which showed the sigmoid colon communicating with the right colon, a communication with the bladder, and a number of blind tracts passing to the region of the hip, sacro-iliac joint and left groin.

Several months after the transverse colostomy, a second operation was performed. The sigmoid colon communicated with the terminal ileum and the terminal ileum communicated abnormally with the cecum. The latter was fixed to the bladder and probably communicated with it. A number of blind fistulas involved the sigmoid. Operation was long and difficult. The terminal ileum was resected with end-to-end anastomosis. The sigmoid was resected with end-to-end anastomosis. The cecum was detached from the bladder and the rectosigmoid from the vagina. A posterior colpotomy was done for drainage.

Considering the magnitude of the procedure, the patient did fairly well, although she did develop postoperative pneumonia and a persistent left inguinal-sigmoid fistula. After six months, when the latter failed to close, a re-resection of the sigmoid was performed and three weeks later, when everything appeared to be going well, the transverse colostomy was closed.

This patient's status was greatly improved at considerable cost and prolonged morbidity.

Conclusion

My purpose in discussing fistulas has not been primarily to add information to this very broad subject, but rather to use this subject as a background for discussing difficult surgery in general. The day of carrying out routine operations is gone. For many years there has been a tendency to classify surgical procedures as major, minor and intermediate. Such a classification is based upon the erroneous assumption that surgery comes in sizes—large, medium and small. Nothing could be farther from the truth.

Most of us realize that surgery must be defined as an area of responsibility rather than technique. In viewing surgery for a number of years, I have observed that the best surgeons are usually those who, for one reason or another, get the best exposure. This may mean a larger incision or multiple incisions. It may mean a second, third, or even fourth assistant. It may mean a special instrument or special retractor, although the simple ones usually suffice. It may mean postponement of a case until local or general conditions improve, or it may on occasion mean a staged procedure.

Good surgery is safe surgery—unhurried, gentle, and in most cases, remarkably simple.

Last, but not least, and completely separated from technique and skillful manipulation, there never has been, nor will there ever be, a substitute for sound knowledge in anatomy, physiology and pathology, combined with a surgical conscience. Herein lies the difference between the safe operator and the clever tchnician.

These, then, are the factors of importance in dealing with complicated fistulas, for more often than not, the fistula is a fine fellow. •

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Psychosomatic Medicine

Part I. The Basic Mechanism

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Basic anxiety is characteristically human because only the human can feel rejection with its implication of threat to existence.

The term *psychosomatic* is derived from the ancient Greek: psyche for the mind, the soul, and soma for the body. Psychosomatic is usualy used to indicate the influences of the mind—or better, the emotions—upon the body.

An emotion can be defined as the mood or feeling that is experienced before, during, or after an event to which we are exposed or even as the feeling that surrounds a thought process. It is obvious that only to the extent that an occurrence has bearing on us will we be affected. The word *affect,* another term for emotion, indicates this relationship. Anything that directly or indirectly even remotely tends to jeopardize our existence will, if perceived as such a threat, provoke a basic physiologic reaction, one that operates throughout the animal kingdom: the well-known fight-or-flight principle. Danger must be overcome or avoided.

Normal and Pathologic Response

The autonomic nervous system prepares us for the stress; it is alarmed by the cerebral cortex, influenced through the hypothalamic centers, and vicariously stimulated by the endocrine glands. The accompanying feeling of fear and apprehension is a well-justified reaction to external stress, since it represents the subjective awareness of the need for protective measures. As long as the reaction is commensurate with the danger, it is physiologically normal. The situation changes basically when stress reactions occur out of all proportion to the real or fancied danger. It is obvious that overmobilization of energy resources is wasteful, weakening, and potentially deleterious from the viewpoint of body economy.

The weakening of the organism that results from overreaction, if this occurs only occasionally, may leave only minimal organic changes, too small to be measured unless on a humero-chemico-cellular basis. If, however, the stress is repeated, these changes may aggregate and cause the microscopic and even gross disturbances that we term organic changes. Thus we see that the demarcation between functional and organic disturbances is only arbitrary; we call a disturbance functional if we cannot detect any changes microscopically or grossly, but with more modern and refined techniques we are able to discover changes at the intercellular level.

The more realistic a human being is, the better he will be able to distinguish real from fancied dangers. This is what we call good judgment. The situation is appraised realistically, and there is no unnecessary expenditure of body energy, with consequent ill-effects. The animal—and I speak here of the animal in its normal habitat, undisturbed by human attempts at domestication—is realistic. It is alert for stress and is prepared to meet it, if necessary, in its own specific way, whether through fight or through flight. It expends no more energy than the situation merits.

Only the Human Infant Can Feel Rejection

In the human being, the situation is somewhat changed. It is inconceivable that the animal in its natural habitat should have a pregnancy that is unwanted or even partially unwanted. The female animal mates with the equally prepared

male only when she is good and ready, fulfilling in the pregnancy the original intention of nature —the preservation of the species. At the same time, the male and female animal will fulfill all of the species requirements for reproduction. In other words, the wild female animal, and at times the male, will if necessary risk its own life to protect and preserve its young. The animal cub in its natural habitat cannot conceivably feel the emotional fearfulness—anxiety—surrounding the question, "Are my mother and father prepared to risk their very own lives to protect mine?" Inasmuch as a pregnancy occurs in the wild animal only when totally desired, the cub will never be exposed to a sensation amounting to something like this: "My mother does not want me, at least to a certain degree, and therefore I am not sure that, although I am totally dependent on her, she will not decide to do away with me." We can well speculate that such feelings might—on an affective level, to be sure—pervade a human infant. This I call the basic anxiety.

All React but in Varying Degrees

The only question is the degree to which a human infant will be pervaded by this fear of destruction and death. It is inconceivable that a human pregnancy should be totally desired; a remnant of hesitation and resistance is unavoidable. If nothing else, the awareness of the hardships and sacrifices entailed in bringing up children would be enough to work as a retarding factor. This would be the very least resistance we could expect. At the other extreme, if a pregnancy is unwanted or wanted only for ulterior purposes, we can only speculate on the amount of resentment that the significant person—generally the mother—will harbor against the offspring, the child that is unknowingly and unwillingly inflicting such hardship. The wish for the destruction and elimination of this encumbrance is unavoidable. Little does the infant know that legal and social inhibitions are at work to preserve his existence. He is only aware of the feeling that his life is threatened. To this he reacts with the well-known physiologic pattern, but he is unable, of course, to either flee or fight.

If the child's anxiety reactions are overwhelming, they can even in one form or another be incompatible with life. This is the extreme case. Every degree of reaction will be found, from the mildest to the most severe that still permits existence. Occasionally, the anxiety will remain unadulterated, free-floating; then it is termed an anxiety neurosis. In many cases the subjective feeling of anxiety will be converted; the physiologic autonomic reactions will be channelled inward upon the organism itself, and specific organs will be singled out according to their vulnerability. Another mechanism available is to project the basic anxiety upon actions, events, and objects with which we come in contact. The rationale is clear: we were dependent upon the support of that person who we felt threatened our existence. We had to maintain that person as a source of our existence. Therefore, we transferred the fearful features to somebody or something else.

Contact with events, actions, or objects that are so unduly endowed with danger will bring about a defensive reaction of the autonomic nervous system that is all out of proportion to their real significance. In the attempt to project the anxiety out of ourselves, we are only exposed reversely to its effects through the objects, events, actions that we have invested with such fearsome meaning. The body again reacts excessively and uneconomically, and we thereby prematurely abuse our resources. We see, therefore, that we can classify ailments as psychosomatic to the extent that they represent excessive reactions to situations unrealistically endowed with danger. •

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Medical Preparedness

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When we use the term *medical preparedness,* just what are we talking about? Words and phrases frequently connote different ideas to different people, hence the speaker often finds it advisable to delineate exactly what he means. By *medical preparedness* I mean the preparation, through training and through posture, to meet medical emergencies resulting from natural disasters, such as earthquake, fire, flood and tornado—and also resulting from war. Inherent in this definition is the idea that *many* individuals will be affected. It seems to me to be axiomatic that preparedness to deal with an emergency involving many individuals will automatically result in preparedness to handle an emergency involving a single or a few individuals.

Needs

Why is it desirable to improve our medical preparedness? Haven't we always handled our medical emergencies both in peace and war reasonably well? The answers to these questions are important. If we are already doing all right then let us forget about the whole thing.

On the war combat side the answer is obvious —things have changed and are changing rapidly. Newer weapons of war can inflict casualties on a scale previously impossible. On the natural disaster side the answer is not so obvious but it is clear. We have not always done a good job in handling medical emergencies. Advances in medical knowledge in the last quarter century have not always been put to use. It is important that the medical profession realize this and furthermore realize that a peacetime medical emergency can occur any place. We have not learned how to prevent bus, train, or airplane crashes, hurricanes, tornados, floods or fires. If the local medical community will prepare itself to cope adequately with these, it will have gone a long way toward preparing itself for wartime disaster.

The elements of medical preparedness are people—people trained, equipped and organized. Hence, it seems reasonable to discuss the problem under these three headings—training, equipment and organization. I will not attempt to evaluate the relative importance of the three. They are all essential to a successful program.

What are the medical problems for which people must be trained? The list is small: physical trauma, thermal burns, radiation, infection and chemical agents. None of these is peculiar to a peacetime or to a wartime disaster.

Principles Not Always Followed

The principles and procedures of handling physical trauma are known and widely publicized. But too few members of the medical profession are familiar with them and, sad to say, many who do know them fail to follow them in an emergency. I will mention a few: control of hemorrhage, including proper use of the tourniquet; splinting fractures *prior* to transport; resuscitation; proper debridement; proper surgery and secondary (not primary) closure. Time and again in emergencies all of these principles have been violated by physicians who knew better.

Our knowledge of the treatment of burns still leaves much to be desired. Too few physicians are up-to-date on the knowledge we do have, yet the mortality in seriously burned cases can be reduced markedly with modern methods.

With the increasing use of radioactive substances in medicine and industry and with the transport of these substances from place to place, the hazard of accidents involving radioactive materials is increasing to the point that every physician should acquire some basic knowledge in the handling of such accidents.

Secondary infection is always a problem in physical trauma and in burns. The principles of its prevention and treatment are well known, but all too frequently they are not applied. Primary infection or infectious disease are problems

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in peacetime disasters where water supplies and sewage systems are comprised. The same applies on a larger scale to wartime situations, plus the possibility, however remote, of biologic warfare.

Chemical agents are becoming increasingly important as hazards in our industrial society. Those physicians with a practice involving industrial workers are alert to these hazards and are familiar with their prevention and treatment. But a large segment of our profesion has at most a sketchy knowledge in this field. In peacetime and wartime emergencies, particularly involving explosions and fires, chemical agents may be an important problem. In wartime there is also the ever present hazard of the use of toxic chemicals including the newer, fantastically potent nerve gases.

Others Will Help

So far I have tried to stress the need for the training of the medical profession of this country to be better prepared to meet emergencies. I have tried to point out the similarity of the problems to be faced in these emergencies whether they be peacetime accidents or the result of enemy action. This is important because, if we hope to get members of our profession to devote time to these problems, they must first be convinced of the possibility that they as individuals may sometime be in a position where they need this knowledge. Experience in the last decade has demonstrated that a large proportion of our profession believes the possibility of war to be so remote that training in civil defense for medical emergencies is not worth the time and effort required.

Experience in both peacetime and wartime emergencies has shown that a large proportion of the care of casualties must be performed by individuals who are not doctors of medicine. In mass casualty situations the number of casualties may be out of all proportion to the number of physicians available at the time and place, and may in fact be out of all proportion to the number of para-medical personnel available. This means then, that on the injured individual himself or his neighbor or buddy may fall the responsibility for emergency live-saving care. It is clear that the need for training must include not only the medical profession itself and paramedical personnel, but also the population as a whole, each group trained to a different level of competence.

MEND Program

Within the medical profession a good start has already been made but it is only a start. The MEND (Medical Education for National Defense) program has now been in existence since 1952. Beginning in five medical schools, it is now in 45 schools and it is hoped that within four years all of the medical schools of the country will be active participants. The Army, Navy, Air force, U.S. Public Health and Federal Civil Defence Administration have contributed funds to help support this program. They also furnish assistance in the form of lectures, literature, films, short courses for school coordinators, and various other aids. Participation in the program by the schools is voluntary and each school carries out the program in its own way as it deems best. I have no doubt that some are better programs than others. However, as more experience is gained it is reasonable to expect that the over-all level of quality will be raised. The two objectives of the MEND program are to convince the embryo physician early in his career of the importance of preparing himself to handle medical emergencies and to give him specific knowledge and specific skills which he can use.

Chronologically, next in the young physician's career is his internship. Here he usually is faced with emergencies involving one or a few individuals and he has the chance to apply his knowledge. Next, he usually enters one of the military services for two years. In my opinion it is the clear-cut responsibility of the Army, Navy and Air Force to train these young men for peacetime as well as wartime medical emergencies. All three services are now doing this, but I am convinced that they can and should be doing a better job.

Keeping Interest Alive

On return to civil life the young physician enters practice or begins additional and usually specialty training. The thought of an emergency involving many casualties becomes remote. He is too busy to concern himself with additional training or with the training of others. Occasionally his local or state medical society may include on one of its programs something concerning medical preparedness and occasionally he may read an article along this line in one of his journals. The knowledge and skills he has previously acquired are not lost, but they will become rusty. If he was properly trained in medical school, in his internship, and in the

military service, he can probably be depended upon to give a good account of himself as an individual physician in a medical emergency, even though for years his professional interest may have been so far afield as, for example, allergy or geriatrics. But in a mass casualty situation, competent performance as an individual physician is not enough. He must be a leader—directing and supervising the work of para-medical personnel—if the maximum number of lives are to be saved. I believe that the physician in practice—and this comprises the bulk of our medical profession—presents the most fertile field to till if we are to improve national medical preparedness.

Still on the subject of training, para-medical personnel must be considered. In a mass casualty situation it is on these groups that will fall the bulk of the actual medical work. In this over-all broad categorization are: dentists, veterinarians, nurses (both registered and practical), dieticians, physiotherapists, pharmacists, and medical technicians of various types. Not to be excluded are those engaged in the administrative facets of medical care—hospital administrators, medical record librarians, supply men and a host of others.

By and large these groups are clamoring for guidance. What will be their functions in an emergency situation? Unless they know, they are at a loss to prepare. In my opinion, the medical profession—and in this indictment I include both civilian and military medicine—has been remiss in failing to give guidance to these groups.

Medical Leadership Needed

In a mass casualty situation are dentists to be limited to the teeth, the mouth, and the maxillofacial? Will they be called on to administer anesthesia—local or general? Are they to do debridements? Unless they know the answers to these questions they cannot prepare. A similar situation exists regarding nurses. What will they be called upon to do in a mass casualty situation? Unless the medical profession of this country lets them know they, likewise, cannot prepare.

I believe the MEND program is an important step toward medical preparedness. Furthermore, I believe a DEND (Dental Education for National Defense), a VEND (Veterinary Education for National Defense) and a NEND (Nursing Education for National Defense) program would be of inestimable value. These professions are willing and anxious to institute such programs in their schools but we in the medical profession have failed to furnish guide lines and to delineate functions. I realize the problem is not simple. It involves traditions, creeds, jealousies, licensing laws and the quality of medical care. But an ostrich-like position is untenable. The medical profession must face it.

What is to be expected of these para-medical groups in a mass casualty situation? If the medical profession does not tell them, who is to? The Congress? The state legislature? Their own national organizations? These groups need guidance. Are they going to get it from the medical profession or will they get it elsewhere? In all probability they will accept guidance from organized medicine but it must be enlightened and realistic. If no answer is forthcoming, or if the only answer is one which, in their eyes, is degrading, they will not accept it. These are strong words but I believe they are true. Today American medicine can give the answers. It can call the shots. If it gives the wrong answers or if it continues to give no answer at all, then some other tribunal may fill the void.

I urge upon American medicine that this problem be faced forthwith and that a determination be made of the functions to be performed by the professions in emergencies which involve masses of casualties. Once these determinations are made, then the problem of training becomes, perhaps not an easy one, but at least one which can be grasped. In undergraduate schools there can be DEND, VEND, and NEND programs. In postgraduate life there can be short courses, symposia and community exercises involving these groups, as well as the medical profession, on a stimulating and realistic basis.

Equipment

So far I have been talking about training. Basically, training applies to the individual and what knowledge and skills he can be taught. Next I would like, for a few moments, to discuss equipment. Repeating an earlier statement, the elements of medical preparedness are people—people trained, equipped and organized. In the usual peacetime medical emergency, equipment and supplies are adequate—if not in the immediate area at least close enough to be brought in by air or surface transportation. In a wartime emergency, equipment and supplies will be critical but never, in my opinion, as critical as trained manpower. This is no reason to neglect the

importance of supplies and equipment. In planning for peacetime emergencies, emphasis can and should be placed on inventories of existing material—i.e., knowing how much is available locally and where. In those instances where shortages exist—for example, whole blood—plans must be made for procurement and distribution. In planning for wartime emergencies, envisioning the destruction of hospitals and warehouses of supplies, emphasis must be on national stocks and national production. In essence, supply planning for peacetime disasters is a local matter—for wartime disasters both a local and a national matter.

Organization

The final element in national medical preparedness is organization. Organization is one of the bugbears of any large effort whether it be General Motors or the Department of Defense. It has been a particularly difficult one in any civil defense effort. One of the principal stumbling blocks has been, in my opinion, the fact that the assumption of an enemy attack on our country presents such a staggering problem that many people tend to throw up their hands in despair and say that the only solution is martial law. The military, on the other hand, says that even if martial law is declared, there are too few military personnel to do all the work which will need to be done.

Many authorities or organizations believe that an organization should be built from the bottom up and not from the top down. To me this is a sensible approach to the problem of medical preparedness. Local communities, under medical leadership, can organize to meet local civilian disasters. Assignments can be made covering members of the medical profession and of the para-medical professions. Supplies, equipment and buildings can be located and earmarked for use; and a realistic training program undertaken, including realistic exercises involving hospitals, clinics, emergency aid and evacuation units. In some communities this is already being done, but in most it is not.

If there are adequate local organizations it will not be too difficult to weld them together under a state organization, whether it be through the mechanism of the state government or of the state medical association. The prime hurdle is the local one and it is basically a lack of motivation. People will organize and train voluntarily if they believe the need is real. To date, with some outstanding exceptions the communities of this country apparently believe the need to prepare is remote and that it is not worth the time and the effort.

Recommendations

This paper would not have a proper military tone unless it included recommendations. I propose the following.

1. Emphasize desirability of local preparedness for peacetime disasters as serving the dual purpose of preparing for such disasters and of being the best method to build toward national medical preparedness for war. Encourage this through the national, state and local medical, dental, veterinary and nursing associations. Likewise through educational associations, such as the Association of American Medical Colleges.

2. Encourage acquisition and stockpiling of additional supplies and equipment by local agencies, such as hospitals, and by FCDA.

3. Determine the role of dentists, veterinarians, nurses and para-medical groups in the event of emergencies involving mass casualties. The AMA should take the initiative in this and should consult with the respective national professional associations. When agreements have been reached they should be published.

4. Stress training for medical emergencies through: the expansion and improvement of the MEND program; establishment of similar programs in schools of dentistry, veterinary medicine and nursing; improvement of training in the military of medical, dental, veterinary officers, nurses and enlisted men on active duty; improvement of training programs for military reservists; and expansion and improvement of emergency-care training programs for the lay public through public schools, Red Cross Chapters, hospitals, factories and civil defense organizations. Again here the impetus must come from the medical profession. Physicians must not only preach the necessity of these training programs and help organize them but also carry much of the load of actual teaching.

These actions require leaders—leaders at all levels who are convinced that our medical preparedness must be improved and who are willing to devote time and effort to the job. This is not something like a community chest drive that is over in a few weeks. This is a continuing need. We will never be prepared to do a perfect medical job in an emergency, but if we are trained, equipped and organized, we can save the lives of many who otherwise will die. •

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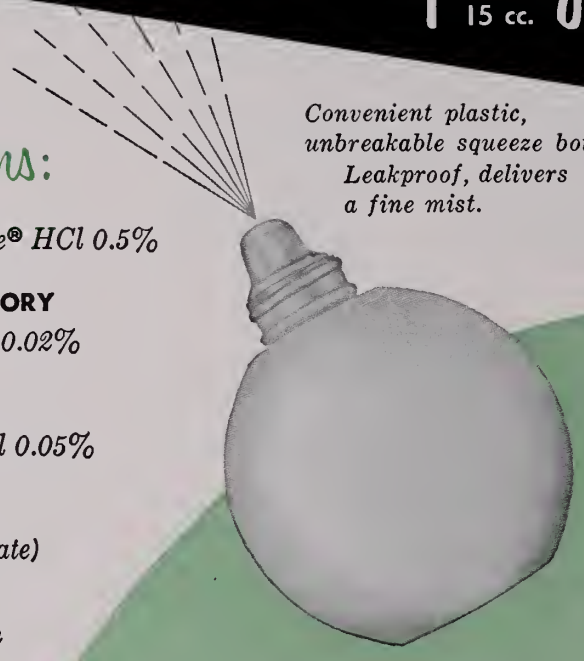
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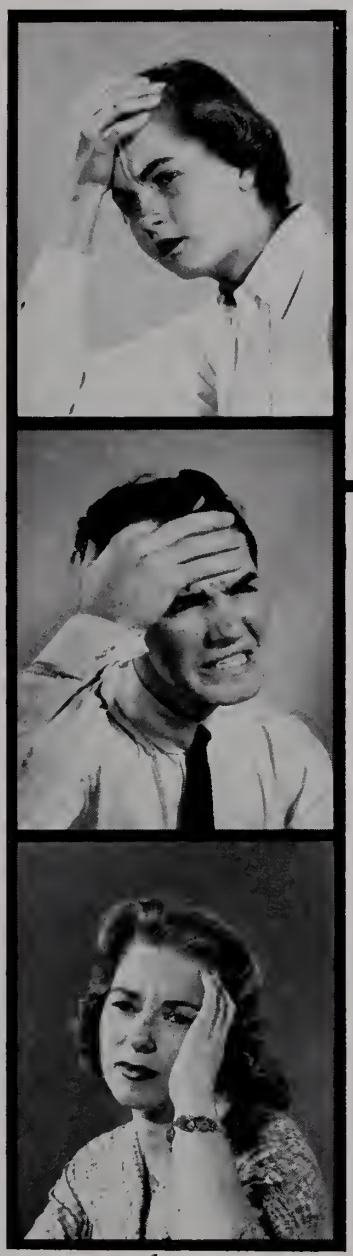


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References: 1. Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.
2. Goldsmith, J. W.: Minnesota Med. *40*:99 (Feb.) 1957.

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D. M. Brinton Named to Executive Committee at October Council Meeting

Election of a new member to the Executive Committee, national policy, consideration of suitable location for the headquarters office, an expanded postgraduate program and re-employment of the Executive Secretary were among the important matters considered at the October meeting of the Council of Oregon State Medical Society.

Elected by unanimous ballot to fill an unexpired term on the Executive Committee was Donald M. Brinton of Eugene, Councilor for District No. 6. Dr. Brinton replaces Carl H. Holm of Salem whose term as Councilor expired at the close of the 1958 Annual Session. Dr. Brinton's term will expire in 1959.

The following matters were referred to the Committee on National Policy for study and recommendation to the Council at its November meeting:

1. That the American Medical Association be requested to establish an "ad hoc" committee to study the problem of physicians who consistently make what is considered to be unreasonable charges for their services particularly for services rendered to patients who are known to have the benefits of pre-paid medical care insurance.
2. That the American Medical Association be requested to sponsor a Joint Council on Prepaid Medical Care Plans.
3. That the American Medical Association be requested to exert leadership in the establishment of a loan fund for medical students.

The Executive Committee reported that preliminary consideration is being given to a future location of the Society's headquarters office at the termination of the present lease on May 1, 1961. In the months ahead it is planned to explore the advisability of constructing or leasing more suitable quarters, possibly in cooperation with professional societies allied to medicine.

In a step to coordinate postgraduate programs throughout the state, the Council voted that the Society assume leadership in this field of education for practicing physicians and requested the Executive Committee to formulate preliminary plans to coordinate the program.

The action followed a suggestion that the Society join with voluntary health agencies in the employment of a Director of Postgraduate Education. Responsibility of such a director would be to plan and coordinate all professional education programs for physicians in Oregon.

The Council also re-employed Mr. Roscoe K. Miller as Executive Secretary for a two year period commencing on January 1, 1959. Mr. Miller was employed on a one year basis in 1957 to succeed the late Mr. Clyde C. Foley.

In other actions the Council voted to hold a mid-year meeting of the House of Delegates in 1959 on a Friday and Saturday rather than on Saturday and Sunday as was the custom, and recommended that the Committee on Public Policy give consideration to holding the 1959 Component Society Officers Conference and Key Man Conference in Salem on a date when the State Legislature will be in session. The dates and location of the House of Delegates meeting will be established later.

Legislative Bulletin To Be Published in 1959

A new Legislative Bulletin prepared and distributed by the Oregon State Medical Society will make its debut when the 1959 State Legislature convenes early in January.

The Bulletin, appearing at intervals during the Session, will provide component society officers, legislative "key men" and "key women" with late reports on activities in Salem.

Gerald E. Kinzel, Portland, new chairman of the Committee on Public Policy, outlined the aims of the Bulletin at the October meeting of the Council. The Bulletin will offer regular reports on the status of legislation dealing with health and medicine along with comments regarding the Society's position on key bills and the attitude of legislators considering the measures.

The Committee on Public Policy also recommended that the Woman's Auxiliary again be authorized to host a tea for the wives of the State Legislature sometime during the Session.

North Pacific Pediatric Society

Scott H. Goodnight and J. Arthur May, both of Portland, are the new president and secretary-treasurer respectively of the North Pacific Pediatric Society. Elections were held during the Society's recent annual meeting in Sun Valley, Idaho.

The Society will hold its winter meeting in Portland next February or March, and the 1959 summer meeting is scheduled in Victoria, B.C. The membership is composed of more than 250 pediatricians from Oregon, Washington, Idaho, Montana and Canada.

OSMS Approves Plan To Reduce Cost of Penicillin to Rheumatic Fever Patients

Rheumatic fever patients requiring long-term prophylaxis will soon get a big break in the cost of penicillin when a new Rheumatic Fever Commission swings into statewide operation.

Council of the Oregon State Medical Society approved an invitation from the Oregon Heart Association to join in the project that figures to reduce the cost of penicillin tablets to selected patients from 23 cents to about 3½ cents. Next step in winning full approval of the plan will be to seek endorsement from component medical societies.

According to Roger H. Keane, Portland, Chairman of the Society's Committee on Heart Disease, programs similar to the one suggested by the Heart Association's Committee on Prevention of Rheumatic Fever already are operating in 36 states. In at least one state the public health department purchases and distributes penicillin without charge to patients and by-passes the family physician.

The program recommended for Oregon proposes that the penicillin for rheumatic fever prophylaxis should be purchased by the patient through normal channels. Special prescription forms will be supplied to physicians upon request. The patient will take the prescription to the pharmacist of his choice who would order the penicillin from the selected drug distributor.

It is proposed to create a Rheumatic Fever Control Agency to administer the program. The Agency would advertise for bids among pharmaceutical manufacturers and arrange for penicillin to be stocked by one or more wholesalers who would fill orders from prescription pharmacists.

The overall program will be supervised by a Rheumatic Fever Commission composed of representatives from the State Society, Heart Association, Oregon State Pharmaceutical Association and other interested agencies.

The Commission will be authorized to appoint a physician to serve as medical coordinator. Initial clerical staff and facilities for a case registry will be provided by the Heart Association.

Oregon Academy of General Practice

Annual scientific session of the Oregon Academy of General Practice was held October 16 and 17 at the Multnomah Hotel, Portland. The program was arranged under the chairmanship of Robert H. Tinker of Portland, president-elect of the Academy. Fourteen speakers, who discussed topics chosen especially for the family physician, appeared on the program.

Guest speakers included: E. Gray Dimond, professor of medicine at the University of Kansas; Abou D. Pollack, assistant professor of pathology at Johns Hopkins University, and John Armes Guis, professor of surgery at the University of Iowa.

Fred Richardson, coordinator of professional affairs for Pennsylvania Hospital, spoke at the dinner meeting Thursday, October 16, on The Future of General Practice. Luncheon speaker that same day was John G. Walsh of Sacramento, Calif., who spoke on Proper Relationship Between Medical Profession and the Third Party.

Council Hears Report on School Bus Driver Physical Examination Program

A report on the status of Oregon's new school bus driver physical examination program and plans to publicize hospital admissions of persons injured in auto accidents were presented at the October meeting of the Council of the Oregon State Medical Society by Arthur A. Fisher of Salem, past chairman of the Committee on Traffic Safety.

Dr. Fisher, who now is a member of the Society's new Commission on Public Health, stated that approximately 40 per cent of the State's 2,200 school bus drivers have satisfactorily completed physical examinations and received special driver permits. The permits are issued by the State Department of Motor Vehicles.

The Committee has been faced with a number of administrative problems during the first year of the bus driver program, Dr. Fisher said. He indicated that the currently approved physical examination possibly will be re-evaluated at the end of the initial year. Any revisions in the standards, such as the frequency of the examination, are expected to be made prior to the opening of schools in the fall of 1959.

Completed examinations are forwarded to the Oregon State Board of Health by the attending physician. All special medical problems are reviewed by the Committee on Traffic Safety prior to acceptance or rejection of the applicant. Examining physicians are provided with a list of conditions considered by the Committee to be non-acceptable for school bus drivers.

The Committee expects to re-evaluate the standards annually.

The Council approved a Committee recommendation which supports a plan now under consideration by the State Department of Motor Vehicles to publish monthly news releases on the number of persons who have been admitted to hospitals with injuries sustained in automobile accidents.

The program, patterned after one in Rhode Island, seeks cooperation from hospitals in collecting data on accident admissions, diagnosis and number of days of confinement. The Oregon Traffic Safety Division would utilize the reports in news stories pointing up the human suffering, loss of income and financial hardships that often accompany needless motor vehicle accidents.

Safety officials estimate that these stories may be more impressive than the usual impersonal releases on traffic fatalities.

The newly appointed chairman of the Committee on Traffic Safety is Otto C. Page of Portland.

Lane County Favors Fluoridation

Lane County Medical Society has reaffirmed its stand in favor of adding fluorides to Eugene's water supply. The issue will be voted on this month by city residents who two years ago turned it down at the polls. The county society also has complimented the Eugene Junior Chamber of Commerce, sponsors of the proposal, for "the work done in thus attempting to help raise the health standards of the community."

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OSMS Re-Affirms Support of Medical Examiner System Supervised by State Police

The Oregon State Medical Society, already on record in support of a medical examiner system to replace the State's outmoded coroner plan, probably will seek at least one revision when proposed remedial legislation is presented to the 1959 Legislature.

After months of study a legislative interim committee recommended that the medical examiner program be administered by the Oregon State Board of Health. In supporting the examiner program the Society endorsed a recommendation of the Oregon Pathologists Association that administrative authority be vested in the State Police.

According to a report of the Committee on Public Policy the State Police are best qualified to administer a broad investigative program of unattended deaths and at the same time this agency has facilities to properly train special police examiners. The Society's report also supports the establishment of a department of forensic medicine at the University of Oregon Medical School.

Arch W. Diack, a member of the interim committee and former chairman of the Society's Committee on Public Policy, reported at the October meeting of the Council that he has received permission to file a "minority statement and comment" when a Legislative committee studies the proposed new statute.

Dr. Diack's statement emphasizes the Society's support of the proposed medical examiner system which would utilize the expert services of qualified pathologists. However, he pointed out that the Society still believes the best plan would be one supervised by the State Police.

"The interim committee recommends that the local medical examiner shall be the county health officer," Dr. Diack explained. "The Society merely says the local medical examiner shall be a physician who resides in the community without specifically designating the county health officer," he nodded.

Dr. Diack urged the Society not to obstruct the establishment of a medical examiner system.

"This does not mean we should sit on our hands when the Legislature convenes, but rather that the Society should appear at committee hearings in support of what we feel will be the best medical examiner system," Dr. Diack concluded.

Following Dr. Diack's presentation, which was included as part of the report of the Committee on Public Policy, the Council re-affirmed its previous support of an examiner system supervised by the State Police.

OB-GYN Specialists Meet in Portland

Fifth annual interim meeting of district VIII of the American College of Obstetricians and Gynecologists was held in Portland at the Multnomah Hotel October 13 through 15. District VIII is comprised of California, Arizona, New Mexico, Nevada, Utah, Colorado, Oregon, Idaho, Wyoming, Washington, Montana, British Columbia, Alberta, Alaska and Hawaii.

Oregon Society of Allergy

New officers of the Oregon Society of Allergy are: Nicholas P. Sullivan, Eugene, president, and Robert L. Cutter of Bend, vice-president.

Multnomah County Physicians Hear Talk On Medicine's Role in TV, Radio and Movies

Members of Multnomah County Medical Society heard an inside report on Hollywood's interest in medical subjects at the October meeting when Eugene F. Hoffman of Los Angeles spoke on Medicine's Role in Television, Radio and Motion Pictures.

Dr. Hoffman, who is chairman of the American Medical Association's Physician Advisory Committee on TV, Radio and Movies, outlined the work of the nine-member committee in reviewing dramatic scripts for the nation's leading television presentations.

The speaker also revealed that the National Association of Broadcasters has adopted a Committee recommendation which prohibits the use of a "man in a white coat" in TV commercials unless the person is an accredited physician. The new code will become effective on Jan. 1, 1959.

The program featured a special "Pay-By-Your-Weight" exhibit and corsage sale conducted by the Woman's Auxiliary which raised more than $100 for the American Medical Education Foundation. The corsages were assembled by an Auxiliary Committee under the direction of Mrs. J. Richard Raines. Assisting were Mrs. J. Clifton Massar, President; Mrs. Greg Nichols, Mrs. Howard C. Emmerson, Mrs. Daniel C. McDonald, Mrs. Wayne Gourley, Mrs. D. J. Molenkamp and Mrs. George Nash.

A brief history and report on accomplishments of the American Medical Education Foundation was presented by Walter C. Reynolds, Chairman of the Society Committee responsible for physician contributions.

Council Appoints New Liaison Committee To the Oregon Nursing Home Association

In keeping with a long standing policy to improve relationships with organizations allied to medicine, the Council of the Oregon State Medical Society has authorized the appointment of a new Liaison Committee to the Oregon Nursing Home Association.

The action was recommended at a recent meeting of the Committee on Public Policy by Mr. John P. Misko, the Society's legislative representative.

The new committee will be added to the list of at least a dozen other committees which now deal with professional and lay organizations interested in medical matters.

Some Society committees dealing with other groups are the Committee on State Industrial Affairs, Liaison Committee to the University of Oregon Medical School Chapter of the Student American Medical Association, Liaison Committee to the Oregon Association of Hospitals, Liaison Committee to the Oregon State Nurses Asscoiation, Liaison Committee to the Oregon Branch of the American Pharmaceutical Association, Liaison Committee to the Oregon State Dental Association and Liaison Committee to the Insurance Industry.

Jackson County Medical Society

Harvey W. Baker, Portland surgeon, was guest speaker at the October 8 meeting of the Jackson County Medical Society at the Rogue Valley Country Club, Medford. Dr. Baker discussed Tumors of the Oral Cavity.

Recent Faculty Appointments at University of Oregon Medical School

Myron R. Grover, Jr., Portland, has been named assistant medical director and administrator of the University of Oregon Medical School Hospitals and Clinics. He will also be an instructor. Dr. Grover received his medical degree in 1954 from Cornell University Medical School. He served his internship at UOMS and completed a two-year residency in internal medicine at that school in July. He also held a research fellowship in neurology in 1955 and received a master of science degree in neurophysiology upon completion of that work.

Victor D. Menasche has been appointed assistant director of the UOMS Crippled Children's Division. He will hold the faculty rank of instructor in pediatrics. Dr. Menasche, a 1953 graduate of UOMS, was recently discharged from the U.S. Air Force where he was chief of pediatrics clinics at the 6510th USAF Hospital at Edwards Air Force Base, Calif. Dr. Menasche served both his internship and residency at the UOMS Hospitals and Clinics.

Otto R. Emig, who has received assistant professorship appointments in both the departments of pathology and obstetrics and gynecology, was graduated from UOMS in 1944. He interned at University Hospital, Baltimore, and took residencies at St. Vincent Hospital, Portland, and at UOMS Hospitals and Clinics. He was formerly chief of the obstetrics and gynecology staff at Sacred Heart Hospital, Medford, and most recently was a teaching fellow in pathology at Harvard Medical School.

Kenneth D. Gaver, appointed assistant professor of psychiatry, was formerly director of education and research at Oregon State Hospital, Salem. He received his medical degree from the University of Tennessee College of Medicine in 1948. He took his internship and residency during service in the Navy from 1948 to 1953. Dr. Gaver was formerly resident instructor in psychiatry at Indiana University Medical Center, Indianapolis, and staff psychiatrist at the Veterans Administration Hospital in that city. He has been a consultant at the alcohol rehabilitation clinic of the Oregon Alcohol Education Committee in Portland.

Frank Shubeck, appointed assistant professor of obstetrics and gynecology, is a 1953 graduate of the University of Michigan Medical School. He served his internship and residency at University Hospital, Ann Arbor, where he has most recently been a senior clinical instructor in his specialty.

Harold Tivey, former assistant professor of medicine at UOMS, has returned as assistant professor of radiology. He has recently held a similar post at Baylor University College of Medicine, Houston, Texas, where he was a John and Mary Markle Scholar. He received his medical degree from UOMS in 1952, following undergraduate work at the University of Oregon and Reed College and graduate work at the University of Washington. He is a consultant to the Teletherapy Evaluation Board of the Atomic Energy Commission, and a member of the advisory committee on research on lung cancer of the American Cancer Society.

Howard J. Tatum, formerly faculty member at Louisiana State University School of Medicine in New Orleans, has been appointed associate professor of obstetrics and gynecology. On leave of absence during the past year, Dr. Tatum has been visiting professor at the University of Valle School of Medicine in Cali, Colombia, under Rockefeller Foundation sponsorship. Dr. Tatum was graduated from the University of Wisconsin Medical School in 1943. He served his internship at San Francisco County Hospital and took his residency at Wisconsin General Hospital.

Instructors recently appointed are: Theodore H. Lehman, urology; Eugene A. Lentini, physiology; Robert D. Michel, medicine; Bernard Pirofsky, medicine; Leo A. Pirojnikoff, medical psychology; John Gordon Roth, neurosurgery; Robert C. Schaan, pediatrics; Rex J. Underwood, anesthesiology; and Yong H. Yang, pathology.

Alternates To Attend AMA Clinical Session

For the first time in several years, alternate delegates for the Oregon State Medical Society to the American Medical Association will attend a Clinical Session.

The Council voted to authorize a full complement of two delegates and two alternates to attend the forthcoming 1958 Clinical Session in Minneapolis. Authorization followed a report at the October meeting by Alternate W. Wells Baum of Salem, who described many important duties of alternates when the AMA House of Delegates is in session.

Making the trip as members of Oregon's official delegation will be A. O. Pitman of Hillsboro and E. G. Chuinard of Portland, the delegates, and Dr. Baum and John G. P. Cleland, Oregon City, alternates.

Oregon also will be represented in Minneapolis by Raymond M. McKeown of Coos Bay, who was re-elected to the AMA Board of Trustees at the Annual Meeting last June in San Francisco.

James L. Wooden Beloved Clatskanie Physician Passes

Dr. James L. Wooden, in practice in Clatskanie, Oregon, for more than 50 years passed away on Oct. 6, 1958 at the Emanual Hospital in Portland. Dr. Wooden had been in ill health for several months.

Dr. Wooden began his practice in Clatskanie on Aug. 12, 1907 shortly after he completed his internship at Good Samaritan Hospital in Portland. He had purchased the practice of Frank Wood and with the exception of a year in the U.S. Army Medical Corps during World War I and brief periods away for postgraduate study his practice in that community has been continuous until his death.

Dr. Wooden was devoted to his community and beloved by its citizens. The high esteem in which he was held by the people of Clatskanie was demonstrated on Aug. 14, 1957 when that date was proclaimed "Dr. J. L. Wooden Day" by Mayor Jerome Puzey. The day's program included brief talks by representatives of the Oregon State Medical Society, the City of Clatskanie and many of the organizations of which Dr. Wooden was a member. Featured also was a potluck picnic attended by 600 persons and a parade of the "Wooden babies" led by the first "baby" delivered by Dr. Wooden on the day of his arrival in Clatskanie.

Born of pioneer parents near Ness City, Kansas, in the western Kansas farm country, Dr. Wooden came West

(Continued on page 1492)

(Continued from page 1491)

with his family at the age of 9 and settled in the Mt. Tabor area in 1891. He received his early education there and then with the family moved to Ashland where he completed elementary school and received his high school diploma. He entered the University of Oregon and later the University of Oregon Medical School from which he received his medical degree in 1906, as one of the 16 graduates of that year's class. He was awarded a Certificate of the "Golden O" in 1956 by the University of Oregon Medical School Alumni Association, an honor received by those 50-year graduates of the University of Oregon Medical School who are still in practice.

During his 50 years in medicine, Dr. Wooden practiced "kitchen table surgery" in homes and used the ultra modern facilities of the present day hospital. To see his patients he traveled by foot, by horseback, by buggy and by boat. When Dr. Wooden purchased the practice of Dr. Wood the sale among other items included a horse, a saddle and a buggy and these, with the exception of the rented boat, were his only means of transportation until 1911 when he purchased his first automobile.

Dr. Wooden was a member of the Columbia County Medical Society, the Oregon State Medical Society to which he was elected a Life member in 1952 and the American Medical Association.

Always active in community life, Dr. Wooden was a member of the Presbyterian Church, the Clatskanie Masonic Lodge, the Shrine, the American Legion and Kiwanis International.

Dr. Wooden was 76 years of age at the time of his death.

Oregon Academy of General Practice Holds Annual Session October 16-17 in Portland



Incoming president Robert H. Tinker of Portland, at left, presents a plaque to retiring president, B. L. Trelstad of Salem, for his year of service to the Oregon Academy.

Fred MocD. Richardson of Philadelphia spoke at the annuol banquet on The Future of General Practice



At left: Scientific sessions during the two days were well ottended by general proctitioners from throughout Oregon.
At right: The congress of delegates met each morning of the session.







harmful cough – 6 to 8 hours with one timed-release tablet

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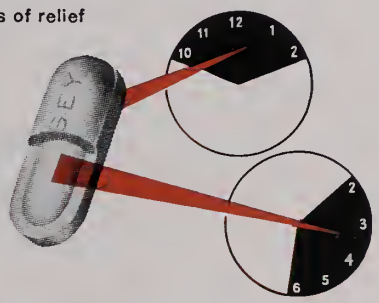
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TRIAMINIC®	100 mg.
(phenylpropanolamine HCl	50 mg.;
pheniramine maleate	25 mg.;
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Terpin hydrate	300 mg.

Dosage: One tablet in the morning, mid-afternoon and at bedtime. The tablet should be swallowed whole to preserve the timed-release action.

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On one tablet—the patient can work all day

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OREGON ARTHRITIS AND RHEUMATISM FOUNDATION—Hans Selye, seated at left, was guest lecturer at the Foundation's annual scientific session October 11 at the Medical Dental Building Auditorium in Portland. Dr. Selye is director and professor of the Institute of Experimental Medicine and Surgery at the University of Montreal. R. E. Rinehart of Wheeler, Oregon, program chairman, is seated beside Dr. Selye. Others who appeared on the program are, standing from left: Norman A. David, professor of pharmacology, University of Oregon Medical School; Henry H. Dixon, clinical professor of psychiatry, UOMS; and Marvin Darrach, professor of Biochemistry, University of British Columbia, Vancouver, B.C.

Stress and Diseases of Adaptation Discussed by Hans Selye at Arthritis Foundation Meeting

The Oregon Arthritis and Rheumatism Foundation proved a point at the annual scientific program held in Portland October 11. The point is that clinicians are very much interested in basic research and will attend a meeting at which clinical features of disease are largely eliminated. Headlined guest speaker, Hans Selye, provided much of the proof in two informal but highly informative lectures. He spoke without notes and from tremendous background of knowledge gained from painstaking research.

First of his lectures was entirely basic. He outlined the concept of stress and the characteristics of what he has called the diseases of adaptation. His presentation of the subject revealed both his penetrating thinking and his ability to transmit his ideas to others. They are the two factors which have enabled him to put the word *stress* into the medical vocabulary of the world.

Dr. Selye's afternoon discussion, still on basic research, came a little closer to clinical medicine. He outlined current research on myocardial infarction. After using 33,000 rats in experiments on the results of stress, he has been able to produce infarcts and to study ways of preventing them. The animals are given a steroid compound, an excess of one of several salts and then subjected to stress. Infarcts result in a high percentage of the animals. Potassium and magnesium salts seem to have a protective effect. This report was based on research of the past two years only and the work is not complete although some of his findings are being tested by others in preliminary clinical investigation.

Norman A. David of Portland also presented a basic discussion on the effect of a number of drugs on muscle. He outlined the characteristics of several of the quinoline series and reported on effects. The salicylates were discussed in the same manner.

Marvin Darrach of Vancouver, B. C., presented a highly informative discussion on the metabolism of several of the steroids and pointed out the directions being taken by chemists to produce inflammation-reducing steroids with reduced undesirable effects.

Closest to clinical application was the very interesting discussion on tension states by Henry H. Dixon of Portland. Findings of his electromyographic studies of muscle tension and spasm could be applied to many of the cases commonly diagnosed as rheumatism.

Registration considerably in excess of the numbers anticipated and the obvious interest of the audience in the papers given, proved the fact that clinicians do enjoy discussions of basic research. •

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q. 12 h.

Two capsules on arising **last all day**
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relieve nervous tension on a *sustained* basis, without between-dose interruption

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Dosage: 2 Meprospan capsules q. 12 h.
Supplied: 200 mg. capsules, bottles of 30.

1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.

2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

Literature and samples on request

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President's Page



HERMAN A. DICKEL, M.D.

At the 1958 Annual Session and the House of Delegates Meeting of the Oregon State Medical Society, changes in the Constitution and By-Laws were adopted. They consisted of two fundamental changes establishing (1) five Commissions somewhat comparable to the AMA Councils and composed of three members each; and (2) the necessary structure for our Society to create scientific sections. Both of these new enactments are improvements over the former arrangement. Both will require some experience to iron out the "bugs."

The Commission system should eventually produce more effective committee activity. It should make "streamlining" possible where necessary, eliminate duplication, improve coordination and generally be extremely more efficient. The system, however, will require hard work on the part of the Commissioners and, on our part, patience and encouragement.

The Commissions, five in number, will this year be labeled and manned as follows:

JUDICIAL COMMISSION:
- Merle Pennington, Sherwood, *Chairman*
- Leon F. Ray, Portland
- Edward L. Stevenson, The Dalles

PUBLIC RELATIONS COMMISSION:
- Alfred J. Kreft, Portland, *Chairman*
- Willis B. Shepard, Eugene
- David B. White, North Bend

PUBLIC HEALTH COMMISSION:
- S. Gorham Babson, Portland, *Chairman*
- Arthur A. Fisher, Salem
- James A. Riley, Corvallis

EDUCATION COMMISSION:
- Verner V. Lindgren, Portland, *Chairman*
- George D. Massey, Klamath Falls
- Bertram L. Trelstad, Salem

PARA-MEDICAL COMMISSION:
- Bradford N. Pease, Bend, *Chairman*
- Herbert E. Mason, Beaverton
- Jacob J. Enkelis, Portland

Each of the chairmen this year are members of the Council and will easily coordinate the activities of the Council with the several committees which will be grouped under each of the Commissions. It will be the duty of each Commission "to make for each committee suggestions for activity in their respective fields; to attend committee meetings where and when necessary, advise the committees of Society policy, to report to the Council a summary of committee activities; and in general to coordinate all Society activity."

You will note that the Executive Committee has seen fit to appoint these men above with an attempt to get as many areas of the State, and specialties, represented. Each of the commissioners has a long record of devoted service to the Society with many committee appointments and chairmanships. They will be advising you soon of their procedures, and how you as committee members or as Society members can aid them.

The establishment of Sections, made possible as noted, will require a lot more time to put into actual effect. Already several specialties have shown interest and the ophthalmology and otolaryngology group may lead the way in a few weeks.

The Executive Committee of the Council was recently filled by the election of Donald M. Brinton of Lane County. He joins Vern W. Miller, Louis J. Feves, Max H. Parrott, Blair J. Henningsgaard, Merle Pennington and the President in filling that group.

Each year as officers change places the activity and momentum of the Society stills for a moment. But stimulus, new drive and new interests rapidly develop. One of the first duties of the President to discharge is an early visit to your component Society. Here the interests of your local group can be discussed. We will try to get to you soon and will appreciate your contacting the State offices if you have a special reason or purpose in wanting us at a special time.

Herman A. Dickel, M.D.
President

Washington

WASHINGTON STATE MEDICAL ASSOCIATION
1309 Seventh Avenue
Seattle 1, Washington

ANNUAL MEETING
Seattle
September 13-16, 1959

President, Emmett L. Calhoun, M.D., Aberdeen Secretary, Wilbur Watson, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

Improved Layout of Exhibits Planned For 1959 Convention of WSMA

An improved layout of scientific and technical exhibits has been planned for the 1959 convention of the Washington State Medical Association, which will be held at the Olympic Hotel in Seattle, September 13-16, inclusive, according to Emmett L. Calhoun of Aberdeen, Association president and chairman of the Scientific Work Committee.

Scientific exhibits will be located in the hotel's Spanish Lounge. Part of the technical exhibits also will be in the Spanish Lounge, and the remainder will be in the Convention Hall. The Physicians' Art Exhibit, which has been a very popular convention feature since its revival in 1957, will be on the stage of the Convention Hall. The physicians' registration booth also will be in the Convention Hall.

Both the Spanish Lounge and the Convention Hall open into the hotel lobby, and between them is the Spanish Ballroom, which will be used for scientific and general meetings and social events. This will make it very convenient for physicians to view the exhibits when they register, as well as when on their way to meetings and during recesses in the scientific sessions.

The Scientific Work Committee will meet in the near future to begin shaping plans for the 1959 convention program. Chairmen will be named for the Scientific Program and Scientific Exhibits Committees, which will start to work immediately.

Annual Diabetes Detection Drive To Be Held November 16 to 23

During the week of November 16 to 23, the American Diabetes Association and its local affiliate, the Washington Diabetes Association, will hold the annual diabetes detection drive. Purpose of the drive is two-fold: 1) to detect the unknown diabetic as early as possible in the development of his disease, and 2) to educate the public about diabetes.

The drive will be accomplished through a widespread publicity campaign urging all persons to have their urine tested during this week. All persons having positive urines or elevated blood sugars will be referred to their physician for further diagnosis and appropriate treatment.

The Washington Diabetes Association urges all physicians, insofar as possible, to test the urine and, where indicated, the blood of all patients entering their office during this week to rule out diabetes.



NEW PRESIDENTS—Pictured at the Annual Banquet of the 1958 convention of Washington State Medical Association are, from left: Dr. and Mrs. Emmett L. Calhoun of Aberdeen and Dr. and Mrs. Clarence L. Lyon of Spokane. Dr. Calhoun is president of the State Association and Mrs. Lyon is president of the Woman's Auxiliary.

WSMA Members Urged To Take Interest In Political and Legislative Matters

Every member of the Washington State Medical Association was urged by the House of Delegates at its recent session in Spokane to take an active interest in political and legislative matters.

The House adopted a recommendation by the Public Laws Committee that "each member of this Association interest himself in the coming general election, and continue his interest throughout the 1959 Legislative session."

The Public Laws Committee recommendation was included in a report of the many problems facing the medical profession in the State Legislature. These problems include a proposal to extend the sales tax to professional services which was specifically opposed in a resoultion adopted by the House.

Aagaard Addresses Educators

George N. Aagaard, Dean of the University of Washington Medical School, participated in the meeting of the Association of American Medical Colleges at Philadelphia last month. He spoke on the subject of "A Method of Handling Professional Fees for a Full Time Medical Faculty."

Health Department Appointments

Wallace Lane has been appointed chief of the Washington State Health Department's division of chronic disease and adult health. For the past year Dr. Lane has been in charge of similar services for the Seattle-King County Health Department. He has held the post of director of the Kansas City, Kas., City-County Health Department.

J. L. Jones, who has been with the state health department since 1945, has been named head of the chronic disease section under Dr. Lane.

Eighty Physicians Hear J. E. Dunphy

Eighty physicians from Island, Skagit, Whatcom and Snohomish counties met at Providence Hospital in Everett September 2 to hear J. Englebert Dunphy, professor of surgery at Harvard University. Dr. Dunphy was brought to Everett by the American Cancer Society. His talk was on Newer Concepts in Cancer Therapy.

James Otto, medical adviser to the Snohomish County unit of the American Cancer Society, was in charge of arrangements for the session.

High Posts Go To Yakima Surgeons

At the reecnt meeting of the Washington Chapter of the American College of Surgeons in Spokane, two Yakima surgeons were installed in high offices. W. Shuler Ginn was installed as president of the state chapter and H. Harlow Skinner, Jr., was installed secretary-treasurer. During October, Dr. Ginn attended the national convention of the American College of Surgeons in Chicago.

Locations

Lloyd R. Lichty and *Russell L. Shaw* have opened offices in Edmonds for the practice of general medicine. Both received their medical degrees from the University of Washington School of Medicine and both are veterans of World War II. Dr. Lichty served his internship at Bremerton Naval Hospital and Dr. Shaw took his internship at a St. Louis hospital.

Elton Kessel, who recently returned from three year's association with the Basic Educational School in Sevagram, India, has opened offices in Forks. Dr. Kessel was graduated from Chicago Medical School in 1953 and served his internship at Cook County Hospital, Chicago.

Charles W. Watkins has opened offices in Vancouver for the practice of dermatology. Dr. Watkins was graduated from St. Louis University of Medicine in 1951.

Seminar on Cancer Held in Longview

Fifty-four physicians from Cowlitz, Lewis, Thurston, Pacific, Clark and Skamania counties gathered in Longview recently for a seminar conducted by J. Englebert Dunphy, dean of surgery at Harvard University. Dr. and also reported on the discovery of several effective anti-cancer drugs.

During his visit to Longview, Dr. Dunphy met with members of the cancer committee of the Cowlitz County Medical Society; Neal R. Kirkpatrick, Charles E. Buck, Henry D. Fuesner, William A. Johnson, L. L. Maas, Powell B. Loggan and R. L. Smith.

Satisfied with the usual cough remedies?



—do you find that the local soothing effect of cough syrups is not enough?

—are you concerned about the side effects of codeine?

—do you find that many remedies decrease cough productivity?

—do you have patients who do not cooperate fully because of cumbersome forms of issue and too frequent dosage?

C I B A

SUMMIT, N. J.

Seattle Physician Takes Top Prize in Art Show at San Francisco

Edmund H. Smith of Seattle won the favorite-of-the-show award in the 21st annual art exhibition of the American Physicians Art Association. The exhibition was held at the Civic Auditorium in San Francisco during the AMA's 107th annual meeting last summer.

Dr. Smith's oil landscape painting received the most votes from the physicians and guests who attended the exhibit. As his award, Dr. Smith was presented with an original painting by Norman Rockwell.

Other awards going to Seattle physicians were: The Joseph Garrison Parker Award for the intern or resident submitting the best painting to Thomas J. Payne for his work, The Red Barn; first prize, beginners' category in water colors, Morton Palken; honorable mention, beginners' category in drawing, Albert J. Bowles; and honorable mentions, category two for advanced artists in both drawing and non-objective, Knute Berger.

Physicians Participate in Defense Exercise

During the recent civil defense test, "Operation Crash," involving 500 persons in east Vancouver, A. E. Underwood, civil defense coordinator for Clark County Medical Society, directed local physicians in exercise staffing at Vancouver Memorial and St. Joseph hospitals. The test involved the military, police and civilians in handling an imaginary disaster in which a plane carrying a nuclear armament crashed and burned. The exercise started at 6 a.m. and was concluded by 9:30 a.m.



WINNER OF TOP PRIZE IN ART SHOW—Edmund H. Smith of Seattle is shown holding his original painting by Normal Rockwell which he received as winner of the favorite-of-the-show award at the 21st annual art exhibition of the American Physicians Art Association held during the June AMA meeting in San Francisco. Dr. Smith's prize-wining oil painting entitled, Desert Quiet and Solitude, is directly above the picture in his hands.

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- 2½ times as effective as codeine[1] without the side effects of codeine.
- controls cough frequency without decreasing productivity or expectoration.
- Perles offer convenient, precise dosage and relief for 3 to 8 hours.

AVERAGE ADULT DOSAGE: 100 mg. t.i.d.
In refractory cough, up to 6 perles (600 mg.) a day may be given.

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Pediatric Perles, 50 mg. (red).

Pediatric Perles available Oct. 1, 1958.

1. Shane, S. J., Krzyski, T. K., and Copp, S. E.: Canad. M.A.J. 77:600 (Sept. 15) 1957.

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Obituaries

Dr. Charles V. Farrell, 64, died in a Bellingham hospital August 14 of an acute coronary thrombosis. Dr. Farrell was graduated from St. Louis University of Medicine in 1924 and had practiced in Bellingham for the past 37 years. He was a past president of the Whatcom County Medical Society.

Dr. Carl W. Stomberg, 56, of Lake Stevens died August 2. While water skiing on Lake Stevens, Dr. Stomberg suffered a heart attack, fell into the lake and drowned. Dr. Stomberg received his medical degree in 1925 from the University of Minnesota Medical School. He had practiced in Everett from 1926 to 1932 when he re-located in Seattle. He had been Everett city health officer from 1928 to 1932.

Dr. Charles E. Watts, 68, died October 12 in a Seattle hospital of a cerebral thrombosis due to cerebral arteriosclerosis and essential hypertension. Dr. Watts was a past-president of King County Medical Society and Washington State Medical Association. He was graduated from Rush Medical College, Chicago, in 1918 and took his intern and resident training in Chicago before moving to Seattle in 1920. For 29 years Dr. Watts was consultant at the United States Public Health Service Hospital in Seattle. He was a Navy veteran of World War II, serving as chief of medical services at Aiea Naval Hospital in Honolulu and later as chief of medical services at the Seattle Naval Hospital. He was clinical professor of medicine at the University of Washington. Dr. Watts was a former president of the Pacific Interurban Clinical Club, first president of the Washington State Health Council, and had been a vice-president of the American College of Physicians.

Dr. Arthur B. Petersen, 37, Spokane internist, died September 5 in Seattle. He received his medical education at the University of Oregon Medical School, graduating in 1947. After serving his internship at Wesley Memorial Hospital, Chicago, Dr. Petersen took his residency training at the Mayo Clinic in Rochester, Minn. He had practiced in Spokane since 1954.

Dr. Orme R. Nevitt, 79, pioneer Raymond physician, died September 6 at a South Bend hospital. Dr. Nevitt attended the University of Minnesota Medical School from which he was graduated in 1900. He had practiced in Raymond since 1905 and had served as the town's health officer for several years. He was a member of the 50-Year Club of Washington State Medical Association. Dr. Nevitt was named general practitioner of the year for the state of Washington in 1951. He was a past president of Pacific County Medical Society. The Dr. Nevitt Memorial swimming pool in Raymond was built and dedicated to his service to the community.

Dr. Laurence A. Quaife, 79, of Rosalia, died September 6 in a Spokane hospital. Dr. Quaife received his medical degree in 1906 from the State University of Iowa College of Medicine. He came to Washington as medical director for the Chicago and Milwaukee railroad and opened his practice in Rosalia.

Dr. Russel S. Reed, 70, general practitioner and arthritis specialist, died October 4 in a Seattle hospital of a myocardial infarction. Dr. Reed was graduated from Bennett Medical College, Chicago, in 1913. He had practiced in Seattle for 42 years.

Joint Medical-Bar Meeting in Everett

Snohomish County Medical Society and Snohomish County Bar Association held a joint no-host social and dinner meeting October 7 in Everett Golf and Country Club. Principal speaker was Judge Thomas Stiger of Snohomish County Superior Court. Judge Stiger spoke on physician and lawyer relationship and the conduct of medical witnesses.

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State Obstetricians Set Meeting Date

Glenn G. Rice of Seattle, president of Washington State Obstetrical Association, has announced that the group's next meeting will be held April 11 in Seattle at the Washington Athletic Club. Guest speakers for the spring meeting will be S. Leon Israel of Philadelphia, associate professor of gynecology and obstetrics, University of Pennsylvania Graduate School of Medicine, and Milton McCall of New Orleans, professor of obstetrics and gynecology, Louisiana State University School of Medicine.

Skagit County Medical Society

Guest speakers at Skagit County Medical Society's regular September meeting were Richard Czajkowski, Ph.D., director of King County Central Blood Bank, and Eloise R. Giblett, associate director. Dr. Czajkowski gave a general resume of the operation of the King County Blood Bank since its inception. He pointed out that in 1944 the average number of transfusions was about 8,000 a year, whereas now the yearly county average is between 33,000 and 37,000 transfusions, exculsive of the large additional amount used in open heart surgery. Dr. Giblett discussed the potential hazards of blood transfusions and methods taken to prevent reactions.

THE 69TH SESSION
of Washington State Medical Association

Medical meetings are like people. They have personality. You can tell from the start that it is going to be a warm, enjoyable friendship or something to make you wish you had not left the office.

The meeting at Spokane was one of the warm, friendly kind and you could feel it in the air when you first walked into the Davenport Hotel to register. What it takes to give a medical meeting a pleasing personality is just as difficult to identify as it is to tell why you like one person more than another. But whatever it is, the 69th session of Washington State Medical Association had it.

The hotel was a busy place with its famous lobby filled with exhibits and the mezzanine providing room for many more. Scientific exhibits were up this year in quantity and also impressively in quality. The physicians' art exhibit demonstrated growing interest of physicians as well as surprisingly high level of talent. Scientific sessions were well attended and the sports events were rewarding to those who participated.



Delegates discuss an issue.

The meeting was opened with a session of the House of Delegates, Sunday afternoon, September 14. This was the usual routine assembly at which committee reports and resolutions are admitted. George Lull, Assistant to the President of AMA, was introduced and gave a short discussion of some AMA activities. Amendment to the constitution relative to qualification of those admitted to membership was introduced. It will be voted on at the 1959 session. Amendment to the by-laws raising dues from $35 to $45 per year was adopted.

Sunday evening was devoted to the No-Host Family Banquet, an informal affair without speeches. A solo entertainer captured his audience by dint of hard work and considerable ability as a gagster and tap dancer. Names of new members of the Fifty-Year Club were announced and those present were given pins. They were F. L. Shepard, Winslow; Mary MacMillan Rodney, Spokane; C. W. Knudson, Seattle; William C. Speidel, Seattle, and Thomas C. Paxton, Seattle. Others admitted but not present were, Herbert E. Coe, Seattle; Howard



Family banquet was held Sunday evening.



President Milo Harris awards a pin to a 50-year member of the State Association.



I. C. Munger, Jr., of Vaucouver, a past-president of WSMA, at left, and F. A. Tucker of Seattle, president-elect of the State Association, at the luncheon meeting of the Washington Academy of General Practice.

(Continued on page 1503)



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(Continued from page 1501)

L. Lull, Yakima; J. W. Johnson, Cardiff, Calif.; William N. Keller, Steilacoom; C. A. Magnusson, Seattle; E. C. Ruge, Palm Desert, Calif.; and E. W. Stimpson, Bellingham.

Monday, traditional day for the golf and fishing derbies, was enjoyed by more participants than ever. Prize fish, a 2 pound cutthroat, was caught by Merritt H. Stiles of Spokane. R. McC. O'Brien repeated his customary capture of the golfing crown with a low gross of 76. This was his fifth such win.

Activities at the Davenport went into high gear on Tuesday with reference committee meetings, scientific sessions, luncheon meetings, general assembly and annual banquet. Reference Committees of the House of Delegates worked most of the day in hearings on committee reports and resolutions. These sessions were fairly well attended although apparently many members of the Association still do not realize that they should participate in deliberations by offering testimony at these hearings. The general assembly heard President Milo Harris give his message and welcomed Gunnar Gundersen, AMA President who delivered an address titled, "Selling the Pass," published in the October issue.

The banquet Tuesday evening was another event without speeches but with enjoyable entertainment. It was followed by dancing.

R. B. Robins of Camden, Arkansas addressed the luncheon meeting of the Washington Academy of General Practice on Tuesday. Dr. Robins is a trustee of AMA and former president of the American Academy.



Left: H. D. Fritz of Cathlamet conducts the Washington Academy of General Practice luncheon meeting on Tuesday. Right: Harold Laws of Seattle speaks at the Public Relations luncheon.

Final meeting of the House of Delegates was held Wednesday afternoon. Business was conducted smoothly by Speaker Humiston and the session concluded more promptly than expected. There was some discussion of the report of the Committee on Graduate Medical Education concerning admission of osteopaths to postgraduate sessions at the medical school. No action could be taken because of a legislative provision making it mandatory for the school not to discriminate.



The Public Relations luncheon on Wednesday was well attended.

Public Laws Committee called attention to the fact that an amendment to the Basic Science Act, considered sound when enacted, had been converted to a loop hole by a number of cultist practitioners because of an attorney general's opinion. The House requested the committee to make attempts to correct the situation. The rather lengthy report, which contained much significant information, was concluded with a recommendation that each member of the Association interest himself in the November election and continue his interest throughout the 1959 legislative session. The Committee on Aging Population instituted a number of studies during the year and recommends further effort to keep county societies, physicians and community groups interested in problems of the aging and possibilities for rehabilitation.



The Hardy brothers attended the annual session as delegates. At left is William H. of Aberdeen and at right, John L. of Endicott.

The House directed the School Health Committee to develop a standard, state-wide school health physical examination program. The House also directed AMA delegates to urge AMA to make further studies on the problem of helping osteopathic colleges improve the quality of their instruction. A new committee to study staphyloccic infections was created and directed to work with hospital authorities and public health officials.

The House adopted a resolution strongly condemning strikes against hospitals and another calling for study of the legal aspect of optometry, particularly in regard to prescription of contact lenses and diagnosis and treatment of ocular muscle imbalance. Also passed was a resolution calling for modification of legislation regulating labeling of hazardous substances. The House went on record as opposing any extension of the state excise tax to include personal services.

Complete record of official action, including committee reports and all decisions of the House, will be carried in a subsequent issue. It is recommended that all members study the reports when published in order to avoid ignorance of affairs of vital concern to all physicians in the state. •

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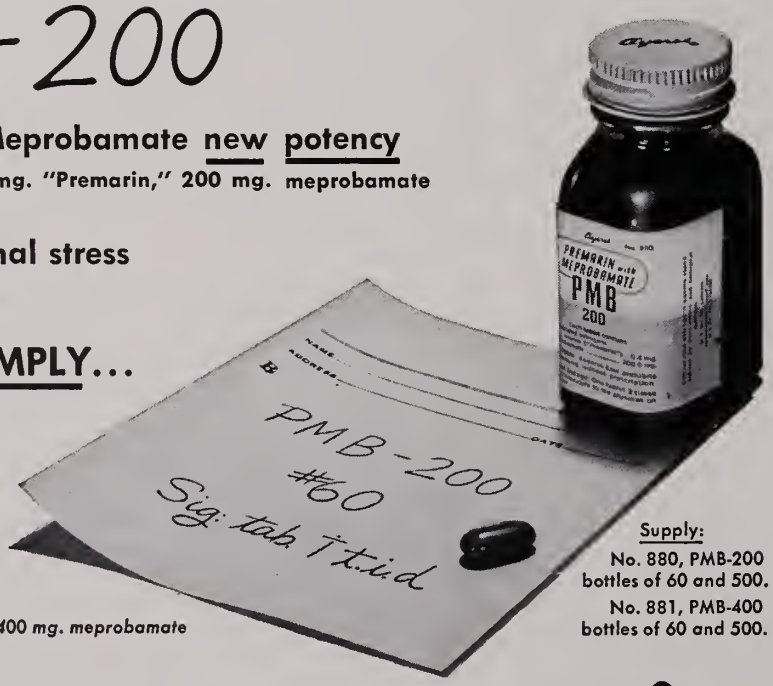
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Idaho

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SIXTY-SEVENTH ANNUAL MEETING
June 14-17, 1959
Sun Valley

President, Donald K. Warden, Lewiston | Secretary, Max D. Gudmundsen, Boise | Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

Resolutions Considered at 66th Annual Session

Following are additional resolutions considered by the House of Delegates of the Idaho State Medical Association during the 66th annual session, Sun Valley, July 6-9, 1958. Action of the House is in italics.

RESOLUTION No. "F-1"

Whereas, it is generally recognized that facilities for medical education must be considerably augmented to insure adequate medical care for our increasing population, and

Whereas, the Southeastern Idaho District Medical Society has recently presented to the State Board of Education and to the physicians of Idaho the results of a study pertinent to the establishment of medical education in Idaho,

Therefore, Be it Resolved, that the Idaho State Medical Association issue an invitation to the Association of American Medical Colleges and to the Council on Medical Education and hospitals of the American Medical Association, to send singly or jointly, a delegation to our state for the purpose of studying our resources in order to advise the Idaho State Medical Association as to the feasibility of the establishment of a two-year medical school in Idaho.

Resolution No. "F-1" was adopted by the House of Delegates.

* * *

RESOLUTION No. "G"

Whereas, the Idaho State Society of Pathologists wholeheartedly supports the program of cytology examinations for cancer screening purposes, and

Whereas, the Idaho State Obstetrical and Gynecological Society enthusiastically approves the cytology program as a routine diagnostic procedure, and

Whereas, the American Cancer Society, Incorporated, Idaho Division, has endorsed this as a lifesaving program, and

Whereas, the success of such a program will be dependent upon the cooperation of all groups concerned,

Now Therefore Be It Resolved, that the Idaho State Medical Association approve this program, and

Be It Further Resolved that the Idaho State Medical Association recommend the cooperation and participation of all practicing physicians in this lifesaving procedure.

Resolution No. "G" was adopted by the House of Delegates.

* * *

RESOLUTION No. "H"

Whereas, fees paid by life insurance companies for insurance application examinations, which include history, physical examinations and certain laboratory procedures in most cases do not meet the cost of the examination, and

Whereas, more life insurance is issued without physical examination, leaving the higher risk applicants as the only group to be examined, thus increasing the value of the examination and emphasizing the need of a most careful examination, and

Whereas, the costs for such services provided by members of the Idaho State Medical Association have increased appreciably

Now Therefore Be It Resolved, that the Idaho State Medical Association requests all life insurance companies doing business in Idaho to increase the fees allowed for insurance examinations to a minimum of $15.00 effective January 1, 1959, and

Be It Further Resolved that copies of this resolution be forwarded to the Insurance Commissioner of the State of Idaho and to all life insurance underwriters and companies doing business in Idaho.

Resolution No. "H" was adopted by the House of Delegates.

* * *

RESOLUTION No. "I"

Whereas, there is a gradually developing need in Idaho for more physicians, and

Whereas, the anticipated population increase in the United States indicates that even greater numbers of well-trained physicians will be required in the years to come, and

Whereas, the State of Idaho has no facilities in its educational system for the training of these physicians, and

Whereas, the people of Idaho have in the past been entirely dependent upon the private and tax supported institutions in other states to educate medical personnel to care for the people in Idaho, and

Whereas, the Idaho Legislature has ratified the compact of the Western States and has made Idaho an active member of the Western Interstate Commission for Higher Education, which program, if properly implemented by appropriated funds will adequately supply the needed educational facilities and thereby furnish a continuing source of medical education for Idaho residents.

(Continued on page 1510)

The Achievements of Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

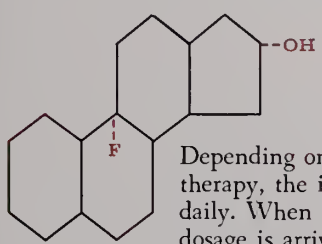
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...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

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(Continued from page 1507)

Now Therefore Be It Resolved that the Idaho State Medical Association hereby re-affirm itself as in favor of Idaho's participation in the Western Interstate Commission for Higher Education, and

Be it Further Resolved that the House of Delegates of the Idaho State Medical Association hereby request the Governor of the State of Idaho and the Legislature to make an adequate appropriation for the implementation of a medical student program under the Western Interstate Commission for Higher Education.

Resolution No. "I" was adopted by the House of Delegates.

* * *

RESOLUTION No. "J"

Whereas, it has been proven that excessive radiation is harmful, and

Whereas, the use of fluoroscopes has been accessible to children in the fitting of shoes without regulation of x-ray dosage with its destructive effect on growing tissue, and

Whereas, the laws of the State of Idaho do not regulate the indiscriminate use of such x-ray equipment,

Now Therefore Be It Resolved that the Idaho State Medical Association sponsor legislation for the prohibition of the use of x-ray equipment for the fitting of shoes unless such equipment is operated by a competent radiologist.

Resolution No. "J" was adopted by the House of Delegates.

COOK COUNTY GRADUATE SCHOOL OF MEDICINE

INTENSIVE POSTGRADUATE COURSES

STARTING DATES—WINTER 1958-59

SURGERY—Surgical Technic, Two Weeks, December 1, February 2.
Surgery of the Colon & Rectum, One Week, December 1, March 2.
Fractures & Traumatic Surgery, Two Weeks, December 1.
Treatment of Varicose Veins, Two Days, December 15.
American Board Review Course, Two Weeks, April 6.
Blood Vessel Surgery, One Week, March 2.

GYNECOLOGY & OBSTETRICS—
Office & Operative Gynecology, Two Weeks, February 9.
Vaginal Approach to Pelvic Surgery, One Week, November 17, February 2.
General & Surgical Obstetrics, Two Weeks, February 23.

MEDICINE—Electrocardiography, Two-Week Basic Course, March 16.
Gastroscopy & Gastroenterology, Two Weeks, March 2.
Board Review Course, One Week, April 20.

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, November 3.

UROLOGY—Ten-Day Practical Course in Cystoscopy, by appointment.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, December 1.

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State Board of Medicine

S. M. Poindexter, Boise, Chairman of the State Board of Medicine, has been notified of his election as a member of the Executive Committee of the North Pacific Society of Internal Medicine during the society's recent annual meeting in Victoria, B.C.

Temporary licenses were granted in September to the following physicians:

Claude W. Barrick, Boise. Graduate of Jefferson Medical College, Philadelphia, M.D. degree 1945. Internship King County Hospital, Seattle, 1945-46. Residency King County Hospital, Internal Medicine, 1948-49, University of Chicago Clinics, Radiology, 1949-53. Granted T-211 September 2. Radiology.

Warren R. Rupper, Idaho Falls. Graduate University of Kansas School of Medicine, M.D. degree 1948. Internship Indianapolis General Hospital, 1948-49. Residency University of Utah School of Medicine Hospitals, Anesthesiology, 1950-52. Granted T-212 September 12. Anesthesiology.

Frank J. Coram, Bonners Ferry. Graduate George Washington University School of Medicine, M.D. degree 1955. Internship USPHS Hospital, Seattle, 1955-56. Granted T-213 September 25. General.

The period for renewal of Idaho licenses to practice medicine and surgery expired October 1. A total of 549 physicians practicing within Idaho renewed their licenses and 270 out-of-state physicians paid the yearly renewal fee.

Twenty-three physicians failed to pay the yearly renewal fee and their licenses have been cancelled.

Pioneer Idaho Falls Physician Harry D. Spencer Dies September 17

The brilliant and colorful career of Dr. Harry D. Spencer, 83, pioneer Idaho Falls physician and surgeon, came to an end on September 17 when he died in an Idaho Falls hospital. Dr. Spencer had been a patient for several days following an automobile accident.

Dr. Spencer graduated from the Iowa State University Medical School in 1897 and had practiced in Idaho Falls since 1908.

Long active in civic and medical affairs, Dr. Spencer played an important role in the growth and development of Idaho Falls.

In 1930 Dr. Spencer served as President of the Idaho State Medical Association. During the July meeting of the Association at Sun Valley, Dr. Spencer was awarded a 50-year certificate for outstanding service to the people of Idaho and the medical profession.

An ardent sportsman in his younger days, Dr. Spencer confined his relaxation in recent years to golf and travel.

J. W. DePree of Moscow Passes

Dr. John Warren DePree, 49, died September 4 in a Spokane hospital after being in failing health for several months. Dr. DePree received his medical degree from Rush Medical College in 1939 and served his internship at Washington Boulevard Hospital, Chicago. He moved to Potlatch in 1941 and then re-located in Palouse in 1944. Dr. DePree maintained offices there until his death. During 1952 he had moved his family to Moscow and was on the staff of Gritman Memorial Hospital in Moscow.



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Kaolin (90 gr.)	6.0 Gm.
Pectin (2 gr.)	142.8 mg.
Dihydroxyaluminum aminoacetate	0.25 Gm.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

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SPECIAL ARTICLE:

Current Problems in American Medicine

R. B. Robins, M.D.
TRUSTEE, AMERICAN MEDICAL ASSOCIATION
CAMDEN, ARKANSAS

You doctors here today—members of the Academy of General Practice and the Washington State Medical Association—make up a perfect audience for me.

As some of you may know, I am a former President of the American Academy of General Practice and a present member of the Board of Trustees of the American Medical Association. For many years I have been actively interested in the work and objectives of both organizations. I always am pleased to note that the Academy supports the efforts of the AMA, which is the parent organization in policy matters, and I am heartened by the increasingly close cooperation between the two.



R. B. ROBINS, M.D.

This is the way it should be. After all, the primary objective of both organizations is to help provide the best possible medical service to the American people. Furthermore, in these trying times of social, economic and political change, medicine needs greater unity than ever before. We must speak and act as one, if we are to achieve dynamic success in solving the problems that confront the medical profession as a whole.

Many, Varied and Complex

What *are* the current problems in American medicine? What are the challenges that demand positive, progressive effort by all of us? As you realize, they are many, varied and complex. I would not impose on your time and good nature by attempting to cover all of them in this brief address. That would be presumptuous on my part and, furthermore, it would keep us here the rest of the day and far into the night. Instead, I should like to highlight a few major problems which, by their nature and magnitude, involve medicine's position in our changing society. They are predominantly socio-economic in character, and they also concern our relations with the American public.

Internal Problems

This is not to say that they are our only difficult problems. We have many others—thorny and complex—which are primarily scientific or professional in nature. Among these are the promotion and coordination of medical research, the expansion and improvement of all phases of medical education, relations between general practitioners and specialists, relations between physicians and hospitals, relations between medical societies and medical schools, and similar problems that might be classified as *in*ternal.

Many of these, of course, have socio-economic overtones, and sometimes they unfortunately are caught up in the snare of bad publicity. But fundamentally they are "family" problems which can be worked out in comparative quiet by medical people of good will. Despite any obstacles or personalities, I am confident that these internal problems will be solved on a basis of common sense, high professional standards and sincere concern for the welfare of the patient. They demand constant study and liaison but, in my opinion, they do not constitute our most serious, most dangerous challenges.

External Problems

I think that our area of gravest concern involves what we might call *ex*ternal problems—those in which our policies and actions are subject to the bright glare of public interest. These socio-economic problems involve the ways and means of organizing and financing medical services. Year by year they attract growing attention from labor, business, industry, the general public—*and* politicians with one eye always on the ballot box. These problems cannot be solved by medical efforts alone. They require the help, understanding and cooperation of all segments of our society.

Presented at luncheon meeting of Washington Academy of General Practice, Spokane, Wash., Sept. 16, 1958. This was part of the 69th Annual Convention of Washington State Medical Association.

One of the most immediate and compelling is the health care of the aged. This problem, of course, is just one major part of the over-all issue of whether private or governmental programs can best meet the medical needs of the American people. However, the health problems of our senior citizens have come rapidly to the fore in recent years, and they have been seized upon by planners and politicians who recognize the value of humanitarian appeal in furthering the social security approach to all welfare problems.

It Is Our Baby

We must begin by admitting that a big problem exists and that we must face up to it. After all, we physicians —along with our co-workers in the field of public health— have created this problem. It is simply one of the prices of medical progress. If you accept the premise that an honorable man does not leave his baby on somebody else's doorstep, then you will agree that we have a serious responsibility in this matter.

Because of the medical advances in the past half-century, average life expectancy at birth in this country has increased from 47 years in 1900 to almost 70 years at present. At the turn of the century there were only three million Americans age 65 or older. Today there are 15 million and by 1975 there will be 20 million. As a general trend, medical emphasis is shifting from the infectious, communicable diseases—which used to be the great killers during infancy, childhood and youth—to the cardiovascular diseases, cancer, arthritis and other ailments which occur mainly during middle and old age.

Medicine long has recognized this trend, and it now is actively conducting or cooperating in a variety of activities to meet both the medical and the socio-economic impact of longer life. Very briefly, I want to sketch some of these developments. We physicians not only must give active support and implementation to such programs, but we also must be vigorous in telling the public about medicine's positive, constructive efforts to improve the health care of our senior citizens. Here are just a few examples.

Chronic Illness

In 1946 the American Medical Association was instrumental in founding the organization which later became known as the Commission on Chronic Illness. Although the Commission was disbanded about two years ago, the AMA still publishes the *Newsletter on Chronic Illness.*

Increasing attention is being given to new treatments, surgical procedures and rehabilitation measures for the aged.

The enrollment of older people under voluntary health insurance has doubled in the past seven years, and almost half of those over age 65 now have some form of health insurance. Our big job in this area now is to improve both the quantity and *quality* of coverage.

Hospitals are actively experimenting in new concepts of design, construction and organization with the objective of assigning the patient to the particular type of care he needs.

AMA Committee on Aging

Following a recommendation by the House of Delegates at the 1954 Clinical Meeting in Miami, the AMA established a Committee on Aging. That committee, steadily increasing its activities, has in the past year or so conducted several regional conferences. Last June, at the AMA Annual Meeting in San Francisco, the House of Delegates approved the committee's Suggested Guides for Medical Society Committees on Aging, which provide a blueprint for state and county action. And just yesterday and the day before in Chicago, the AMA Committee on Aging sponsored a national planning conference to mobilize and coordinate medical society action on health care for the aged. I urge all of you to give close attention to the proceedings of that meeting.

Standards for Nursing Homes

For the past year, through a liaison committee with the American Nursing Home Association, the AMA has been working for the establishment of improved medical care standards for nursing homes. To help achieve that goal, the AMA Council on Medical Service this summer has been making a field survey of about 25 nursing homes in various parts of the country. The findings and recommendations of that study probably will be published sometime this fall.

In a major move last spring, the American Medical Association joined with the American Hospital Association, American Dental Association and American Nursing Home Association in forming the Joint Council to Improve the Health Care of the Aged. Studying needs, resources and program development in this entire area, the new Council will give particular emphasis to increasing and improving voluntary health insurance coverage of older people, expanding health care facilities tailored to the needs of the aged, regardless of their economic status, and developing more community health services for our senior citizens.

Hill-Burton

Your AMA also has taken an active interest in sound national legislation which would help further these objectives. For example, in approving extension of the Hill-Burton hospital construction program, we also suggested a number of changes which would have given the states greater flexibility in meeting their needs—including the need for more nursing homes and chronic illness facilities. The program was extended without the amendments we wanted, but we shall continue to press for the ideas involved.

The same applies to our position urging Federal Housing Administration mortgage guarantees to stimulate construction of both proprietary and nonprofit nursing homes. I had the personal privilege of presenting the AMA testimony on this subject before two congressional committees. Although the legislation providing FHA-insured loans passed the Senate, it died in the House, but we shall continue to support it as part of our long-range program for better care of the aged.

White House Conference

The AMA also supported a bill calling for a White House Conference on Aging, to be held in January 1961. This bill passed Congress in the closing days of the recent session, after a strong AMA plea to prevent postponement of action in the Senate. Purpose of the national conference will be to "arrive at facts and recom-

(Continued on page 1514)

(Continued from page 1513)

mendations concerning the utilization of skills, experiences, and energies and the improvement of the conditions of our older people."

We are, as you can see from these various examples of medical activities, doing something to improve the health care of the aged. It is a growing problem, and we physicians accept our full share of responsibility in helping to solve it. But we must be vigorous, progressive and imaginative. And we must work with the utmost speed. For, as I mentioned earlier, this problem now is being used as a timely lever to force expansion of the Social Security program into the fields of hospital and medical care.

Outstanding example of this tactical trend is the Forand Bill, which had the full support of organized labor in the 85th Congress. This bill would have provided certain hospital, surgical and nursing home benefits for an estimated 12 to 13 million persons who are recciving—or are eligible for—Social Security retirement or survivorship payments. I do not intend to go into detail on the many reasons for medicine's opposition to the Forand Bill, but I should like to emphasize two major points: First—with its emphasis on hospital, surgical and *limited* nursing home benefits, this kind of proposal offers an unsound, illogical approach to the basic problems of chronic illness. Second—by providing socialized, tax-paid care for over 6 per cent of the people, any program of this kind would . . . by the familiar process of amendment, liberalization and expansion . . . simply prove to be an entering wedge for a complete system of national compulsory health insurance.

Social Security Expanded

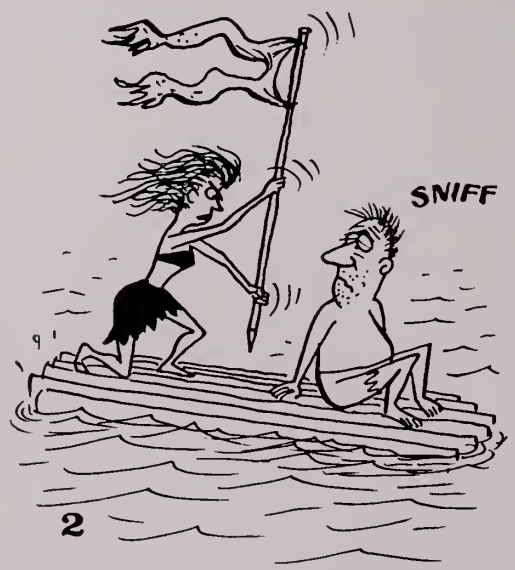
Congress did not adopt the Forand amendments, but it once again passed an election-year expansion of the over-all Social Security program—increasing the benefits, the tax rate and the amount of taxable income. However, the Forand approach is by no means a dead issue. It will be back again next year. Senator Morse of Oregon and Senator Humphrey of Minnesota tried to revive the idea in the Senate debate on the Social Security bill. President George Meany of the AFL-CIO has declared that labor will urge adoption of the Forand proposal and other social security measures as soon as the 86th Congress convenes next January.

Furthermore, the House Ways and Means Committee has called upon the Secretary of Health, Education and Welfare to report by next February on a study of the various possibilities for financing the health care of the aged. Among the suggested areas of study is the idea of adding to social security taxes and using the money to buy "private or nonprofit" health insurance which would take effect upon ordinary retirement at age 65 or disability retirement at age 50. This, of course, is a dangerously deceptive idea which already has confused some of our friends in Congress. So, I think you will agree, medicine has a tremendous amount of work to do on just this one problem.

Other Problems

But while I have deliberately emphasized the health care of the aged, because of its importance and urgency, I also want to call your attention briefly to a few other current problems.





As both physicians and citizens, we must give serious concern and study to all aspects of our expanding Social Security system. Some day soon the American people will have to make a decision on the philosophy, scope and cost of that entire program.

Likewise, the public and the members of Congress soon must make a similar decision concerning the steady expansion of the Veterans Administration hospital and medical care program, which now is operated mainly for the care of non-service-connected disabilities. The AMA believes that the program's only purpose should be to provide unstinting care for veterans whose disabilities are caused or aggravated by military service. The people must be given the facts.

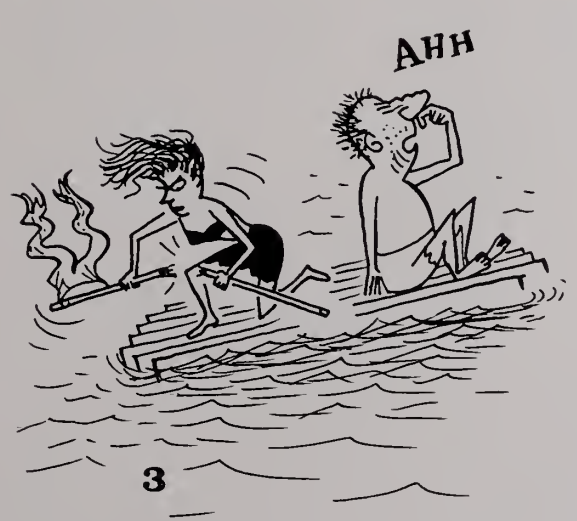
The physicians of America also must take a more active interest in legislation, and to help promote such interest the AMA now is studying ways and means of improving the profession's entire legislative information system. The need for increased effort is demonstrated by the fact that in the 12-year period from the 79th Congress to the 85th Congress, the number of bills involving medicine and health increased from about 200 to more than 700.

Another major problem facing medicine today is our relationship with so-called third parties involved in the provision and financing of medical care—such groups as the insurance industry, labor unions, business and industry, consumer groups, and many others. In some areas there have been serious differences of opinion over such issues as free choice of physician and the right of third parties to judge the qualifications or competence of doctors and hospitals. While we in medicine must be firm in defending basic principles and ethics, I believe that we must work hard for mutual understanding and effective liaison with all such groups. After all, they are trying to do a job under the private enterprise system which we value, and I think we should resolve our differences in such a way that we can be allies in the much bigger fight against government control. There is, however, need for a clear, definitive policy in this area of third party relationships. It is hoped that such a policy may be worked out of the findings and recommendations of the AMA Commission on Medical Care Plans, which has been at work for almost four years and which is expected to present its final report at the Association's Minneapolis Clinical Meeting in December, this year.

Conclusion

Gentlemen, I could go on at great length about current problems in medicine, but I think I have given you enough to worry about today. In closing I should like to repeat a point that has been stressed in recent months by Gunnar Gundersen, President of the AMA; F. J. L. Blasingame, the Executive Vice-President, and other medical leaders. If medicine is to meet the challenges of the day constructively and successfully, it must have the help of the best available men throughout the ranks of the profession. The task will require not only time and effort, but also a sense of dedication. I hope that a large share of that time, effort and dedication will come from you physicians of the State of Washington. •

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— *Prof. F. Caramazza*
ITALIAN JOURNAL OF OPHTHALMOLOGY

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— *William C. Marsh*
U. S. ARMED FORCES MEDICAL JOURNAL

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BOOKS

"For the books a man writes and the books a man reads are a measure of the man himself."

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RECEIVED

The following books have been received. Publication or this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

Bacterial and Mycotic Infections of Man. 3rd Ed. Edited by Rene J. Dubos, Ph.D., The Rockefeller Institute, 820 pp. 116 Illustrations. Price $8.50. J. B. Lippincott Company, East Washington Square, Philadelphia 5, Pennsylvania. 1958.

Diagnostic Anatomy. By Weston D. Gardner, M.D., Associate Professor of Anatomy, Marquette University School of Medicine, Director of Medical Education, Evangelical Deaconess Hospital, Milwaukee, Wisconsin. 376 pp. Illustrated. Price $10.00. The C. V. Mosby Company, St. Louis, Missouri. 1958.

Diseases of the Liver and Biliary System. 2nd Edition. By Sheila Sherlock, M.D. (Edin.), F.R.C.P. (Lond.), M.R.C.P. (Edin.), Physician and Lecturer, Department of Medicine, Postgraduate Medical School, University of London. 719 pp. Illustrated. Price $11.50. Charles C Thomas, Springfield, Illinois. 1958.

The Gang—A Study in Adolescent Behavior. By Herbert A. Bloch, Professor of Sociology and Anthropology, Brooklyn College; and Arthur Niederhoffer, Lieutenant, Police Department, N.Y.C. 231 pp. Price $6.00. Philosophical Library, 15 East 40th Street, New York 16, N.Y. 1958.

Hemophilic Arthropathies. By Henry H. Jordon, M.D., Orthopaedic Surgeon, Lenox Hill Hospital; Chief of Hemophilia Clinic, Lenox Hill Hospital, O.P.D., New York City; Consulting Orthopaedic Surgeon, Manhattan State Hospital; Orthopaedic Surgeon, National Hemophilia Foundation. 255 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Illinois. 1958.

Ideals In Medicine—A Christian Approach To Medical Practice. Edited by Vincent Edmunds, M.D., M.R.C.P.; and C. Gordon Scorer, M.B.E., M.D., F.R.C.S. 192 pp. Price $3.00. Christian Medical Society, 127 S. Wacker Drive, Chicago 6, Illinois. 1958.

Infectious Diseases of Children. By Saul Krugman, M.D., New York, N.Y., Associate Professor of Pediatrics, New York University College of Medicine; Visiting Pediatrician, Bellevue Hospital; Director, Communicable Disease Unit, Bellevue Hospital Center; Attending pediatrician, University Hospital; Formerly Assistant Visiting Physician, Willard Parker Hospital; and Robert Ward, M.D., Los Angeles, Calif., Professor and Head of the Department of Pediatrics, University of Southern California; Physician-in-Chief, Children's Hospital, Los Angeles, California; Formerly Professor of Pediatrics, New York University College of Medicine, and Visiting Pediatrician, Bellevue Hospital, New York, N.Y. 340 pp. Illustrated. Price $10.00. The C. V. Mosby Co., St. Louis, Mo. 1958.

Lumbar Disc Lesions—Pathogenesis and Treatment of Low Back Pain and Sciatica. 2nd Ed. By J. R. Armstrong, M.D., M.Ch., F.R.C.S.; Orthopaedic Surgeon to the Metropolitan Hospital; Orthopaedic Surgeon to Lambeth Hospital, Visiting Orthopaedic Surgeon to Manor House Hospital, (Industrial Orthopaedic Society); Honorary Consulting Orthopaedic Surgeon to Royal Waterloo Hospital for Children and Women, Late Visiting Orthopaedic Surgeon to the Ministry of Pensions Hospital; Stoke, Mandeville, Late Orthopaedic Specialist, Royal Air Force Medical Service; Foreword by H. Osmond-Clarke, C.B.E., F.R.C.S., Orthopaedic Surgeon, London Hospital, Senior Visiting Surgeon, Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry; Civilian Consultant in Orthopaedic Surgery to the Royal Air Force. 340 pp. Illustrated. Price $10.00. The C. V. Mosby Company, St. Louis, Missouri. 1958.

The Practical Use of the Microscope—Including Photomicrography. By George Herbert Needham, M.S., F.R.M.S., Past President of the New York Microscopical Society; Past President of the San Francisco Microscopical Society (Reorganized 1946); Lecturer in Microscopy and Photomicrography, University of California Medical School, University Extension, San Francisco, California, Consultant in Microscopy and Photomicrography. 493 pp. Illustrated. Price $15.50. Charles C Thomas, Springfield, Illinois. 1958.

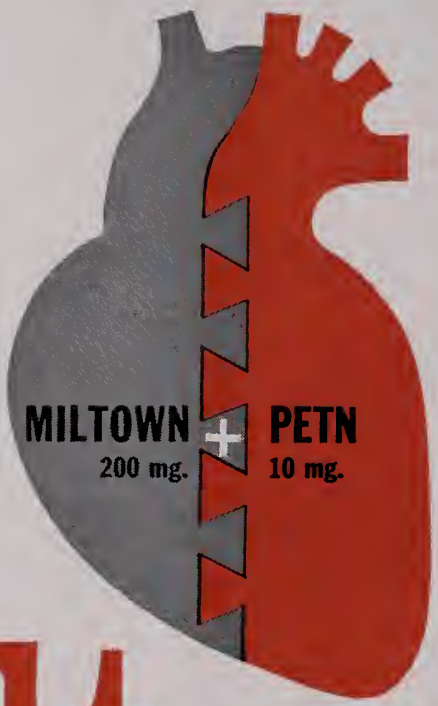
Radiation Protection. Edited by Carl B. Braestrup, Director, Physics Laboratory, Francis Delafield Hospital; Associate, Department of Radiology, Columbia University, New York, N.Y.; Member, Executive Committee, National Committee on Radiation Protection and Measurements; and Harold O. Wyckoff, Chief, Radiation Physics Laboratory, National Bureau of Standards, Washington, D.C., Secretary, International Commission on Radiological Units and Measurements. 361 pp. Illustrated. Price $10.50. Charles C Thomas, Springfield, Illinois. 1958.

Systemic Ophthalmology. 2nd Ed. Edited by Arnold Sorsby. 682 pp. Illustrated. Price $25.00. Butterworth & Co. (Publishers), Ltd. London, England; The C. V. Mosby Company, St. Louis, Mo. 1958.

The Cervical Syndrome. 2nd Ed. By Ruth Jackson, B.A., M.D., F.A.C.S., Clinical Assistant Professor of Orthopaedic Surgery, The University of Texas Southwestern Medical School, Dallas; Attending Orthopaedic Surgeon, Baylor University Hospital; Formerly Chief of Orthopaedic Surgery, Parkland Hospital; and Instructor in Orthopaedic Surgery, Baylor University College of Medicine, Dallas, Texas. 197 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Illinois. 1958.

(Continued on page 1521)

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(Continued from page 1519)

Callander's Surgical Anatomy. 4th Ed. By Barry J. Anson, M.A., Ph.D., (Med. Sc.), Chairman Department of Anatomy, and Robert Laughlin Rea Professor, Northwestern University Medical School, and Member of the Staff, Passavant Memorial Hospital; and Walter G. Maddock, M.S., M.D., F.A.C.S., Edward S. Elcock, Professor of Surgery, Northwestern University Medical School, and Chairman of the Department of Surgery, Chicago Wesley Memorial Hospital. 1157 pp. Illustrated. Price $21.00. W. B. Saunders Company, Philadelphia, Pa. 1958.

An Atlas of Esophageal Motility in Health and Disease. From the Section of Physiology and the Section of Medicine, Mayo Clinic and Mayo Foundation. The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota. By Charles F. Code, M.D., Ph.D., Professor of Physiology, Mayo Foundation, Consultant, Section of Physiology, Mayo Clinic; and Brian Creamer, M.D., M.R.C.P., (London), Research Assistant, Section of Physiology, Mayo Clinic and Mayo Foundation; and Jerry F. Schlegel, B.S., Technical Assistant, Section of Physiology, Mayo Clinic; and Arthur M. Olsen, M.D., M.S. in Medicine, Associate Professor of Medicine, Mayo Foundation, Consultant, Section of Medicine, Mayo Clinic; and F. Edmund Donoghue, M.D., M.S. in Medicine, Instructor in Medicine, Mayo Foundation, Consultant, Section of Medicine, Mayo Clinic; and Howard A. Andersen, M.D., M.S. in Medicine, Instructor in Medicine, Mayo Foundation, Consultant, Section of Medicine, Mayo Clinic, Rochester, Minnesota. 134 pp. Illustrated. Price $8.50. Charles C Thomas, Springfield, Illinois. 1958.

Circulation—Proceedings of the Harvey Tercentenary Congress held on June 3rd-June 8th, 1957 at the Royal College of Surgeons of England, London. Edited by John McMichael, M.D., F.R.C.P., F.R.S., Professor of Medicine, University of London, and Director, Department of Medicine, Postgraduate Medical School of London. 503 pp. Illustrated. Price $10.50. Charles C Thomas, Springfield, Ill. 1958.

Cold Injury, Ground Type. By Colonel Tom F. Whayne, M.C., U.S.A. (Ret.), Professor of Preventive Medicine, School of Medicine, University of Pennsylvania, Philadelphia, Pa.; and Michael E. DeBakey, M.D., Professor of Surgery and Chairman of the Department, Baylor University College of Medicine, Houston, Tex., Formerly Colonel, M.C., A.U.S. 570 pp. Illustrated. Price $6.25. Superintendent of Documents, Government Printing Office, Washington 25, D.C. 1958.

Emergency Treatment and Management. 2nd Ed. By Thomas Flint, Jr., M.D., Director, Division of Industrial Relations, Permanente Medical Group, Oakland and Richmond, California; Chief, Emergency Department, Permanente Medical Group, Kaiser Foundation Hospital, Richmond, California. 539 pp. Price $8.00. W. B. Saunders Company, Philadelphia. 1958.

The Neurologic Examination—Incorporating the Fundamentals of Neuroanatomy and Neurophysiology. 2nd Ed. By Russell N. DeJong, M.D., Professor of Neurology and Chairman of Department of Neurology, University of Michigan Medical School. 1078 pp. Illustrated. Price $20.00. Paul B. Hoeber, Inc., Medical Book Dept. of Harper & Brothers, New York. 1958.

Renal Circulation in Acute Renal Failure. By Ole Munch, M.D., University of Copenhagen, Physician at Rigshospitalet, Copenhagen. 54 pp. Price $3.00. Blackwell Scientific Publications, Oxford; Charles C Thomas, Springfield, Illinois. 1958.

Technic and Practice of Psychoanalysis. By Leon J. Saul, M.D., Professor of Clinical Psychiatry, Medical School of the University of Pennsylvania; Training Analyst, Philadelphia Psychoanalytic Institute; Psychiatric Consultant; Swarthmore College. 244 pp. Price $8.00. J. B. Lippincott Company, East Washington Square, Philadelphia, Pa. 1958.

Thirst—Physiology of the Urge to Drink and Problems of Water Lack. By A. V. Wolf, Ph.D., Walter Reed Army Institute of Research, Walter Reed Army Medical Center, Washington, D.C. 563 pp. Illustrated. Price $12.50. Charles C Thomas, Springfield, Ill. 1958.

Therapeutic Exercise. 3rd Vol. Edited by Sidney Licht, M.D., Honorary Member, British Association of Physical Medicine, Danish Society of Physical Medicine, and the French National Society of Physical Medicine. 893 pp. Illustrated. Price $16.00. Elizabeth Licht, Publishers, 360 Fountain Street, New Haven, Conn. 1958.

Clinical Radiology of the Acute Abdominal Disorders. By Bernard S. Epstein, M.D., Chief, Department of Radiology, The Long Island Jewish Hospital, New Hyde Park, New York; Associate Clinical Professor of Radiology, Albert Einstein College of Medicine, Yeshiva University, New York, New York. 352 pp. Illustrated. Price $15.00. Lea and Febiger, Philadelphia, Pa. 1958.

(Continued on page 1522)

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(Continued from page 1521)

Rehabilitation Medicine—A Textbook on Physical Medicine and Rehabilitation. By Howard A. Rusk, M.D., Professor and Chairman of the Dept. of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York, N.Y.; and thirty-six collaborators. With the Editorial Assistance of Eugene J. Taylor, A.M. Illustrations. 572 pp. Price $12.00. The C. V. Mosby Co., St. Louis. 1958.

The Management of Emergencies in Thoracic Surgery. By John Borrie, M.B.E., Ch.M., F.R.C.S. (Eng.), F.R.A.C.S., Thoracic Surgeon, Dunedin Hospital and Southern Metropolitan Region, New Zealand; Senior Lecturer in Thoracic Surgery, University of Otago Medical School, Formerly, Hunterian Professor and Jacksonian Prizeman, Royal College of Surgeons, England; Assistant Thoracic Surgeon, Newcastle-upon-Tyne, England; New Zealand Nuffield Surgical Fellow. Foreward by Sir Russell Brock. Illustrations. 340 pp. Price $10.00. Appleton-Century Crofts, Inc., N.Y. 1958.

Ciba Foundation Colloquia on Ageing. Vol. 4—Water and Electrolyte Metabolism in Relation to Age and Sex. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A. 85 Illustrations. 327 pp. Price $8.50. Little, Brown and Co., Boston, Mass. 1958.

Pathophysiology in Surgery. By James D. Hardy, M.S. (Chem.), M.D., F.A.C.S., Professor and Chairman, Dept. of Surgery, and Director of Surgical Research, University of Mississippi Medical Center; Surgeon-in-Chief, Hospital of the University of Mississippi; Chief Surgical Consultant, Jackson Veterans Hospital and Mississippi Tuberculosis Sanatorium. Illustrations. 704 pp. Price $19.00. The Williams & Wilkins Co., Baltimore. 1958.

Radioactive Isotopes in Clinical Practice. By Edith H. Quimby, Sc.D., Professor of Radiology (Physics), College of Physicians and Surgeons, Columbia University, New York; Sergei Feitelberg, M.D., Director, Physics Dept., The Mount Sinai Hospital; Associate Clinical Professor of Radiology, College of Physicians and Surgeons, Columbia University, New York; and Solomon Silver, M.D., Attending Physician; Chief, Thyroid Clinic, The Mount Sinai Hospital; Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, N.Y. 97 Illustrations. 451 pp. Price $10.00. Lea and Febiger, Philadelphia. 1958.

Ciba Foundation Symposium on the Neurological Basis of Behaviour. In commemoration of Sir Charles Sherrington, O.M., G.B.E., F.R.S., 1857-1952. Editors for the Ciba Foundation G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc. 109 illustrations. 400 pp. Price $9.00. Little, Brown & Co., Boston, Mass. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlomert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

ANOMALIES OF INTESTINAL ROTATION AND FIXATION (INCLUDING MESENTERICOPARIETAL HERNIAS). By Roberto L. Estrada, B.Sc., M.D., C.M., D.Surg. (McGill), F.R.C.S. (C), F.A.C.S., Demonstrator in Surgery, McGill University, Montreal, Canada. 161 pp. Illustrated. Price $6.50. Charles C Thomas, Springfield, Ill. 1958.

This monograph describes the various types of malrotation, anomalies of intestinal position, and the rare retroperitoneal hernias. The author presents a new classification (his own) of the various types of intestinal malrotation. It is, of course, necessary to understand exactly how the malrotation came about and what its position is in relation to other abdominal organs in order to relieve the various symptoms which are encountered. Case histories are presented and operations described for the various types of malrotation and hernias herin described.

It is possible to get interested in this book and read it all in one evening, although the chances of encountering the conditions described, are exceedingly rare.

Van K. Hillman M.D.

MEMOIRS OF A GOLDEN AGE. By Maurice Davidson, 140 pp. Illustrated. Price $3.75. Basil Blackwell, Oxford. 1958. Distributed by Charles C Thomas, Springfield, Ill.

This short book is a series of reminiscences by an Englishman who spent his undergraduate days at Oxford just as the twentieth century dawned.

Now, a half century later, he looks back on the development of his school and thinks kindly of the giants who peopled it during his formative years.

Such men as Burdon-Sanderson, Acland, Collier, Ellis and a host of others who built a solid base in the preclinical years for later generations are paid their just respects. Their personalities are stressed and their contributions to the Oxford Medical School are presented.

Those of us who are not old-school-tie are apt to find this book quite dull. Locally, we are preoccupied with clearing the timber to erect clinics of aluminum and glass and vinyl tile. We are not quite ready to look back, or at any rate, not there.

Meaning no disrespect, reading this book is a bit like looking at your wife's family album. You really should be more interested because there, for better or worse, is the stock from whence your progeny spring and your own world progresses.

Actually, you could not care less. Lovable characters though they may be, the only ones you remember are the ones who leave something in the way of tangible assets.

It is the same with men of learning.

Eric R. Sanderson, M.D.

DR. W. C. ROENTGEN. Ed. 2. By Otto Glasser, Ph.D., F.A.C.R. (Assoc.), Professor of Biophysics, Frank E. Bunts Educational Institute Head, Department of Biophysics, Cleveland Clinic Foundation, Cleveland, Ohio. 169 pp. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Charles C Thomas is now offering what is purported to be a second edition of Otto Glasser's "W. C. Roentgen." Careful comparison of this book with the first edition reveals that the only new material is a list of 18 references to articles and books that have come out since the first edition was printed. None of this material is reflected in the body of the book itself. Three illustrations have been improved. Some original typographical errors are repeated. That there has been no change is not surprising because one would find it extremely

difficult to improve upon the very thorough job done by Glasser in this biography.

Anyone even remotely interested in the subject of x-ray radiation should possess one of these volumes. The reader will gain almost personal satisfaction in the "Horatio Alger" situation wherein Roentgen is offered and refuses a professorship in the school that denied him admission when a student. Here is another example of the rewards that come to a man who has thoroughly prepared and disciplined an alert mind. The account of the actual recognition of the properties of the emissions from the various vacuum tubes studied by Roentgen is extremely thorough and well done.

The general make-up of the book reflects the expected pleasing quality of a Thomas Publication.

Ivan M. Woolley, M.D.

ABNORMAL LABOR. By L. A. Calkins, M.D., Department of Gynecology and Obstetrics, University of Kansas Medical Center, Kansas City, Kansas. 70 pp. Price $2.75. Charles C Thomas, Springfield, Ill. 1958.

The author has had extensive experience in evaluating normal and abnormal labor. By and large, the book Abnormal Labor is an excellent summary of the normal pattern of labor and its deviations. I have used Calkin's method for predicting the length of labor and have found it quite accurate.

The author discusses management of various complications of different stages of labor. The discussions are quite brief but in keeping with good obstetrics.

I disagree with a statement made by the author in his disucssion of abruptio placenta. The author states, "It is usually ill-advised to induce labor promptly as most of these patients will go into labor within a matter of hours. The need for later induction will depend upon the circumstances then present." Most authorities agree that in definite cases of abruptio placenta the membranes should be ruptured for the following reasons:

1—To iniate labor if the patient is not in labor.
2—To facilitate labor if the patient is in labor.
3—To reduce intra-uterine pressures hoping to reduce the likehood of afribrinogenemia.

The discussion of the third stage of labor is excellent.

The author has accomplished his purpose in providing a ready reference guide for management of and therapy for abnormal labor.

Donald M. McIntyre, M.D.

HANDBOOK ON DISEASES OF CHILDREN Including Dietetics & Common Fevers. Ed. 8. By Bruce Williamson, M.D., (Edin.) F.R.C.P. (Lond.), Physician, Children's Department, Royal Northern Hospital, London; Physician Children's Hospital, Northaw. 483 pp. Illustrated. Price $6.00. E. & S. Livingstone Ltd., Edinburgh and London. 1957. Distributed by The Williams and Wilkins Co., Baltimore.

Diseases of Children by Bruce Williamson has gone through eight editions. It is a small, attractively bound handbook with a very readable format; it is written in a concise manner and is well illustrated.

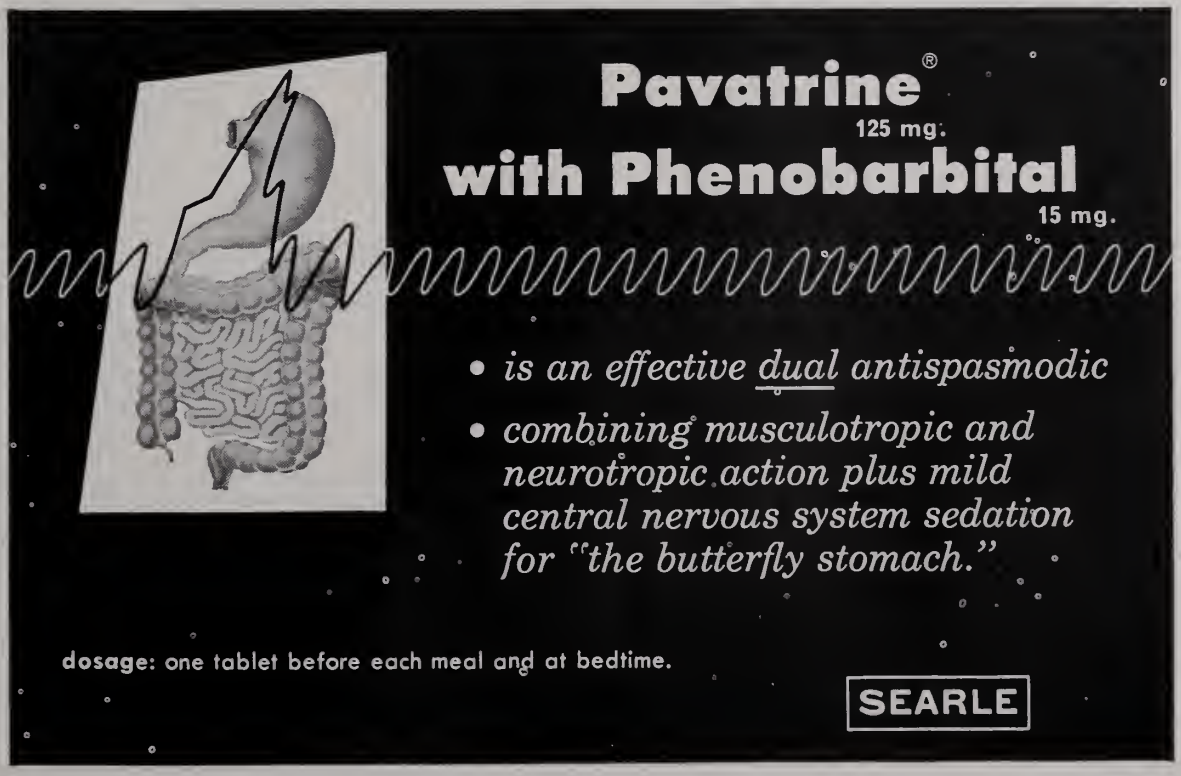
The reader may not agree with the author that, "Repeated bronchitis, anaemia, backwardness, or any local condition of importance, e.g., middle-ear infection or deafness, are absolute indications for operation if the tonsils show chronic infection." The reader may also wonder at the lack of mention of antibiotics in treating tonsilitis and the emphasis placed on salicylates, potassium chlorate, gargles and local paints.

Nevertheless in general the text provides an epitome of most of the diseases of childhood and should serve as a rapid refresher for anyone who treats children. In addition, it provides information on the incidence of childhood diseases in England.

L. F. Osborne, M.D.

(Continued on page 1526)

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(Continued from page 1523)

MANAGEMENT OF COMPLICATIONS IN EYE SURGERY: Avoidance of Pitfalls and Treatment of Difficult Situations in Ophthalmologic Operations. Edited by R. M. Fasanella, M.D., Chairman of Section of Ophthalmology, Yale University School of Medicine. 422 pp. Illustrated. Price $16.00. W. B. Saunders Co., Philadelphia. 1957.

This compilation of material by 22 well-known authorities in the field of ophthalmology is full of practical suggestions and discussions on the prevention and treatment of most of the complications encountered in ocular surgery.

Each chapter is a complete entity in which an author considers the management of his particular problem. In addition, the last chapter is the Report to the Council of Industrial Health of the American Medical Association by Edmund Spaeth, Bruce Fralick and William F. Hughes, Jr., on "Estimation of Loss of Visual Efficiency."

The format of the book is very good; the printing is excellent, and the illustrations are clear and good.

This volume is highly recommended to the ophthalmic surgeon. Its study and possession as a reference will be of great value and render much aid when confronted with the inevitable complications seen by almost everyone who does ocular surgery.

Frederick F. Ackerman, M.D.

CLINICAL OBSTETRICS AND GYNECOLOGY. A Quarterly Book Series, Vol. I, March 1958: Medical Problems in Pregnancy, edited by Curtis J. Lund, M.D.; and Management of Endocrine Problems, edited by Allan C. Barnes, M.D. 288 pp. Illustrated. $18.00 per year. Paul B. Hoeber, Inc., New York. 1958.

This is the first in a series of books to be published quarterly, designed to fill the gap between the journals in obstetrics and gynecology on the one hand and the textbooks and monographs on the other. If one acknowledges that such a gap exists, then its publication is completely justified. As the title suggests, the clinical approach to specific problems in obstetrics and gynecology are discussed with the emphasis on diagnosis and treatment.

The book is divided into two main sections, each having an editor. The first concerns medical problems in pregnancy, and the second, endocrine problems in the female. Generally, the articles dealing with endocrine problems are better handled than most of those covering the medical problems. The chapters on urinary tract infection and poliomyelitis complicating pregnancy are the exceptions. Both are well written, informative, and original in their scope. There is some overlapping in subject matter, however, with a chapter in each section on diabetes and pregnancy.

The medical problems discussed range from the more commonly seen anemia in pregnancy, to the fortunately rare association of multiple sclerosis and pregnancy. Each topic is treated concisely and directly, stressing the practical approach toward therapy. As can be expected, since the articles are the products of different authors, there is a wide variation in style and effectiveness of presentation. This is particularly noticeable when comparing the two main divisions of the book.

That half of this issue devoted to endocrine problems is unusualy good, for this complex subject is reduced to its essentials, in a succinct and informative manner.

The list of contributors to this issue is a formidable one and should command respect, but a list of important names does not make a book. One gets the impression that the material was hastily assembled and, in the first half, but briefly edited. Subsequent issues could be improved by more thorough editing and closer coordination of the editors.

Taken as a whole, however, the general idea for a book of this type is a fresh approach to aid the general practitioner and the specialist in the management of obstetric and gynecologic problems.

Charles S. Williams, M.D.

HOW TO LIVE WITH DIABETES. By Henry Dolger, M.D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York; and Bernard Seeman. 192 pp. Price $3.50. W. W. Norton & Co., Inc., New York. 1958.

This is a very readable account of diabetes, which describes all phases of diabetic instruction. With each chapter there is the fascinating story of discoveries that provide today's diabetic patients with measures for good control. This sweep of history gives the diabetic patient a feeling that he is a part of a long tradition and as background for instruction it materially helps him to come to terms with the regimen of his disease.

Howard M. Hackedorn, M.D.

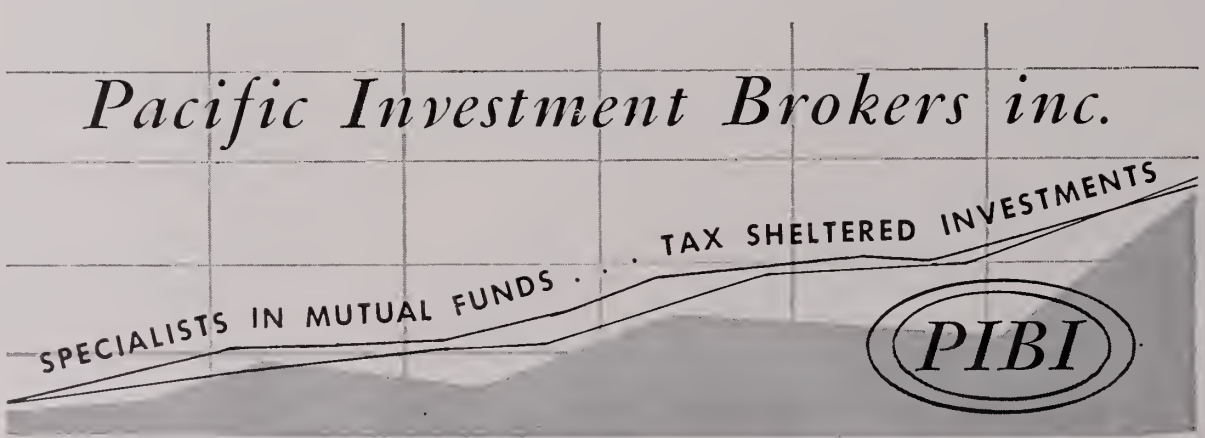
CANCER AND THE ATOMIC AGE. By Clement A. Tavares, M.D. 198 pp. Price $3.50. Vantage Press, Inc., New York. 1958.

For those physicians who have not gathered information for their own use about the history of cancer this book will be informative.

That energy exists in the animal cell has been evident for years, otherwise we would not be here. To my mind this book does not prove that increased or decreased energy of any type in the cell produces malignant disease.

Donald V. Trueblood, M.D.

(Continued on page 1528)



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(Continued from page 1526)

YOU CAN INCREASE YOUR HEART-POWER. By Peter J. Steincrohn, M.D. 381 pp. Price $4.95. Doubleday & Co., Garden City, New York. 1958.

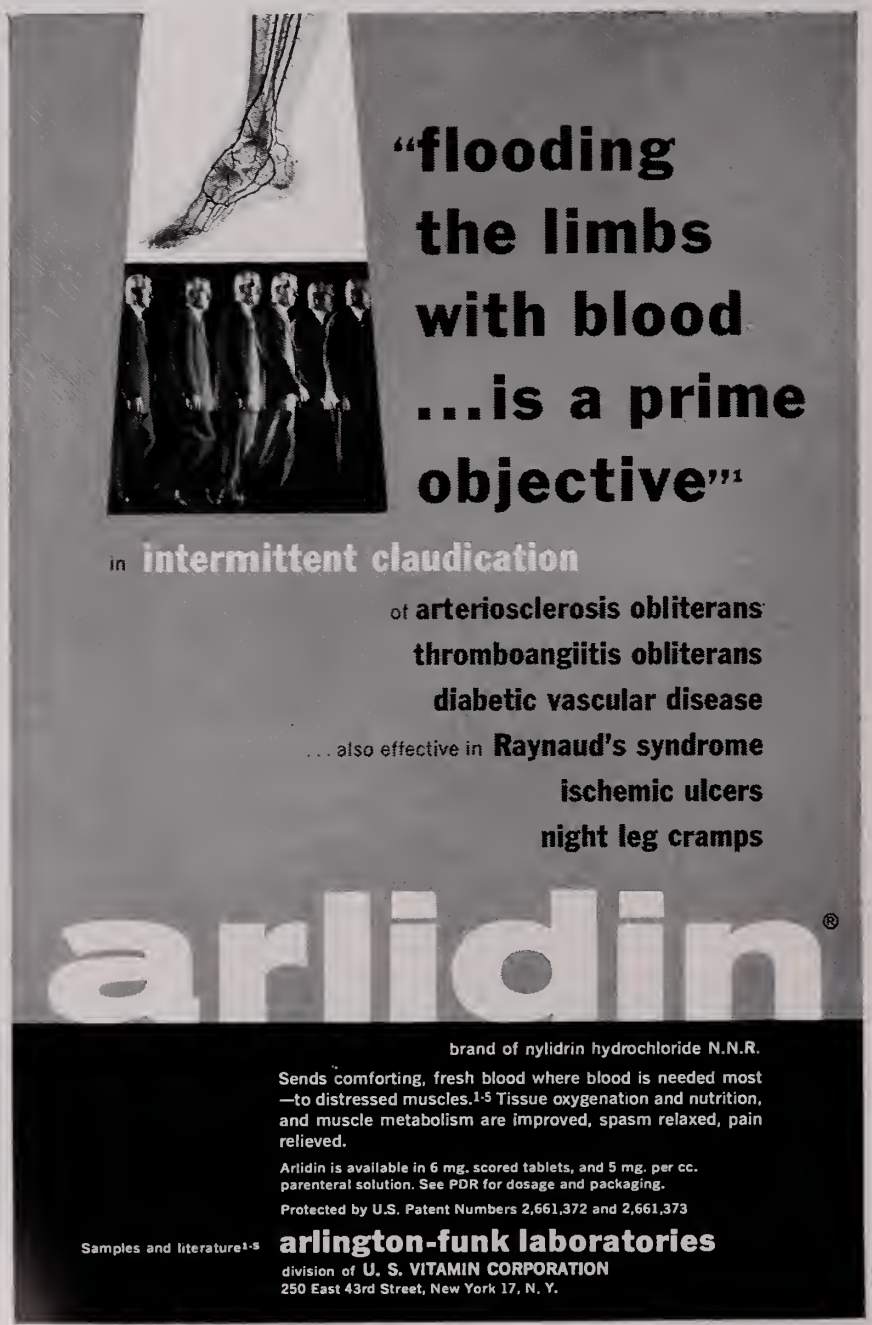
As may be guessed from the title, this is a book for the patient with heart trouble or his family. The author, a cardiologist, writes a syndicated column, and has written eleven other books for the laity.

Every good physician recognizes that most of his patients have many questions about their illnesses, and that adequate answers to these questions are time consuming. In addition many patients fail to ask their physician some of the questions that bother them. Heart disease seems to provoke more fear in patients than most illnesses and by the same token requires more explanation from the doctor and more reassurance. This book is a compilation of questions about heart disease which have been asked Dr. Steincrohn by his patients and by readers of his column with his answers to same.

I get the impression that Dr. Steincrohn is a good cardiologist who is particularly well oriented to the emotional needs of his patients. His explanations and comments are on the whole reasonable and medically acceptable and should be understandable to the patient. He stresses the need for the unhurried, thorough discussion between physician and patient and awareness by the doctor of the emotional problems that so often are associated with heart disease. As he admits his inability to answer some reader's questions from the information furnished and refers the patient to his physician, the book would probably strengthen existing patient-physician relations.

The question and answer method used is probably more interesting to most readers than the usual

(Continued on page 1530)





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(Continued from page 1528)

text, and is more likely to include the questions uppermost in patients' minds. However, it takes more space since the questions are printed in full, and since the questions and answers are somewhat repetitious.

In the introduction the author sells himself and his book in a way that seems immodest. Probably his experience in writing for non-professional consumption has led him to be positive in order to produce a book that will have wide appeal and be convincing.

In summary, this is a good book for the heart patient which would inform and benefit him and be acceptable to most physicians. It is understandable and interesting but a bit long (376 pps.). It could be recommended for the cardiac patient who has more than usual anxiety about his condition, and who would wish a lengthy written discussion in addition to the explanation given by his physician.

Donal R. Sparkman, M.D.

PSYCHOPHARMACOLOGY: Pharmacologic Effects on Behavior. Edited by Harry H. Pennes, M.D., D.Med. Sci. (Neurology), Consultant in Psychiatric Reasearch, Department of Mental Hygiene, New York Psychiatric Institute, New York, N.Y. 41 Participants. 362 pp. Price $8.00. Paul B. Hoeber, Inc., New York. 1958.

This symposium by 41 participants, including biochemists, physiologists, pharmacologists, experimental psychologists, psychiatrists and psychoanalysts, attempts to explain the mechanism by which some of the newer psychopharmacologic agents effect behavior. It is by necessity a rambling, speculative and controversial but interesting discussion because very little is really known about the basic action of these drugs. When one considers that the mode of action of ether is still unknown, it is not surprising that the participants seem to be unable to arrive at any unanimity of opinion regarding even a tentative hypothesis about how these drugs work. For the main part, the discussion is limited to the tranquilizers, chlorpromazine, reserpine and meprobamate, and the psychosis-producing drugs, L.S.D. and mescaline, which already dates this new book in the rapidly developing field of biochemic factors in mental illness.

Although the clinical use of these drugs has been well established on an empirical basis for several years, it is hoped that basic investigations, such as described in this book, will lead to more definitive chemotherapy of psychiatric disorders. The average clinician upon reading this book will be confused but impressed with the complexity and difficulty of biochemic investigation when it involves the action of drugs on the human brain and behavior. The investigator doing basic research in the field of psychopharmacology will undoubtedly wish to have this book in his library for reference as to current work and theories, some of which are here published for the first time.

Frederick Lemere, M.D.

STUDIES IN FERTILITY 1956—Including Papers Read at the Conference of the Society for Study of Fertility, London, 1956: Vol. VIII of the Proceedings of the Society. Edited by R. G. Harrison, M.A., D.M., Derby Professor of Anatomy in the University of Liverpool. 138 pp. Illustrated. Price $5.00. Charles C Thomas, Springfield, Ill. 1957.

This small interesting volume contains a number of articles concerned with current trends in research as well as clinical papers on fertility. Most of these papers were read at the Conference of the Society for the Study of Sterility held in London in 1956. Its contents are conveniently divided into male and female sections, experimental and clinical.

While this volume has a larger number of articles concerning research in the direction of male fertility, there are two excellent clinical articles in

(Continued on page 1536)

why all the fuss over potassium?



Many physicians will recall when safe but potent organomercurials were first introduced. At the time there was considerable worry about possible potassium loss. Patients were instructed to take foods rich in this mineral, and not infrequently potassium supplements also were advised. After enough experience was gained, it became evident that only the exceptional case could lose enough potassium to be concerned about. And with oral organomercurial diuretics this was practically never a problem.

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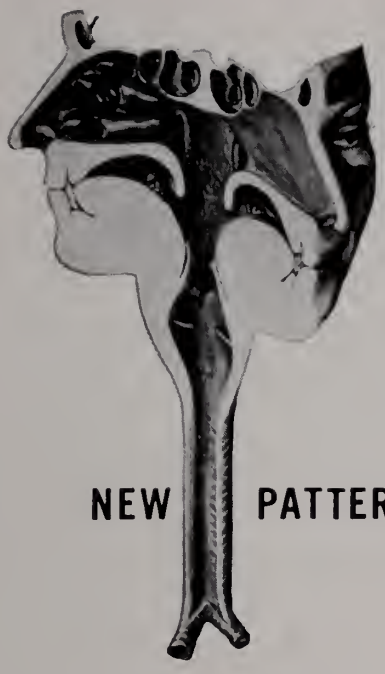
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REFERENCES: 1. New and Unused Therapeutics Committee, Am. Coll. Allergists: Ann. Allergy 16:237 (May-June) 1958. 2. Spielman, A. D.: Ann. Allergy 16:242 (May-June) 1958. 3. Spielman, A. D.: New York J. Med. 57:3329 (Oct. 15) 1957. 4. Hunnicutt, L. G.: Bull. Vancouver M. A. 28:348 (July) 1952. 5. Hunnicutt, L. G.: Bull. Vancouver M. A. 28:352 (July) 1952. 6. Pirani, C. L.: Metabolism 1:197 (May) 1952.

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References

1. Lemere, F., and Lasater, J. H.: Am. J. Psychiat. *114*:655 (Jan.) 1958.
2. Murphree, H. B., Jr.; Jenney, E. H., and Pfeiffer, C. C.: 2-Dimethylaminoethanol as a Central Nervous System Stimulant, Presented before Assoc. for Research in Nervous and Mental Disease, New York, Dec. 12-14, 1957. To be published.
3. Oettinger, L., Jr.: Presented before the American Encephalographic Society Meeting, Atlantic City, June 14, 1958. To be published, Journal of Pediatrics.

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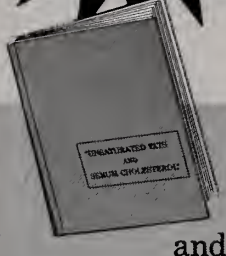
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(Continued from page 1530)

the female infertility section, the one entitled Brief Evaluation of Some Therapeutic Measures Used at an Infertility Clinic During the Past Twenty Years being of particular interest from the practical aspect to the clinician. The other, entitled The Use of a New Long-Acting Progestational Compound, describes in detail the present use and value of this important hormone. The male clinical section on Partitioned Ejaculates and Testicular Biopsies was particularly excellent.

It would be impossible in a short review to abstract all 13 articles. Those who are devoted to research reflect the enthusiasm of the workers in the field of fertility who have always given us new avenues of approach to our clinical problems.

Those who are specialists in the field of fertility would enhance their libraries by obtaining the proceedings of this society in a condensed form.

Charles S. Fine, M.D.

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THE CHEMICAL DYNAMICS OF BONE MINERAL. By William F. Neuman, Ph.D., Associate Professor of Biochemistry and Pharmacology, University of Rochester; and Margaret W. Neuman, B.S., Instructor in Pharmacology, University of Rochester. 209 pp. Illustrated. Price $5.00. University of Chicago Press, Chicago. 1958.

This is an exhaustive book on precisely what the title says—the dynamics of chemicals involved in bone minerals.

I thought it a scholarly and well organized work, but felt a little disappointment in being unable to discern within the description of these dynamics anything which would enable any practicing physician to decide about an issue which has been of extreme importance to doctors everywhere and has had a special sharpness in my own community.

I refer to the fact that one can read this little monograph in its entirety and come away with no conviction whatever as to the merits of fluoridation. Perhaps this is too much to ask of a book of this kind. There is reference made, of course, to the fact that fluoride is deposited in bone and that in excessive quantity it constitutes a toxic agent within bones. None of this is unknown, however, to the scientific reading public, and therefore represents somewhat of a disappointment to me.

Nothing about this comment is intended to be unfair to the scholarly quality of the work. The organization of the book appears to me to be excellent. The printing, paper and binding are all first grade.

Dean K. Crystal, M.D.

ELECTROCARDIOGRAPHY. By Michael Bernreiter, M.D., Assistant Clinical Professor of Medicine, University of Kansas Medical School. 134 pp. Illustrated. Price $5.00. J. B. Lippincott Co., Philadelphia and Montreal. 1958.

The jacket of this book suggests that the need for a new book covering the fundamental aspects of electrocardiography has been widely felt. I do not agree with this. The fundamental principles have not changed recently and there are many books published on this subject each year, all of similar content.

As a short, concise book on clinical electrocardiography this book has merit—particularly in that it is shorter, and the discussions are clearer and more to the point than many other fundamental books. The preface suggests that the author intends this for medical students, general practitioners and internists—it can not do all this and does not. Its value to the internist is only for refreshing his memory on material well known to him—and this, of course, has value.

There are several very distracting matters in the presentation. Most figures are photographs of cardiograms reduced in size, making them hard to see. I would have preferred a larger size and less length to the strip. All figures are interspersed on entire pages with nearly the same size print as the text. Thus, an entire page is often half empty. Frequently, the text skips four or more pages with these figures between, making reading of the text and matching the legends to the subject in question an annoyance. Page 67 has an entire title at the head of the page misplaced and not related to the content immediately beneath. This is not a picayune criticism because it took me many minutes to decipher the mix-up and get on with the reading. Many pages of figures are not numbered while others are. This is apparently an omission because the next numbered page does not pick up the continuity of the last numbered page but rather assumes the unnumbered page was numbered. Quinidine is spelled "quinidin" part of the time.

This book is adequate to refresh one's memory in fundamentals of electrocardiography or in learning the subject. Many books have this and much more. This book does not represent an important contribution to the already overcrowded literature on the subject of electrocardiography.

Peter Fisher, M.D.



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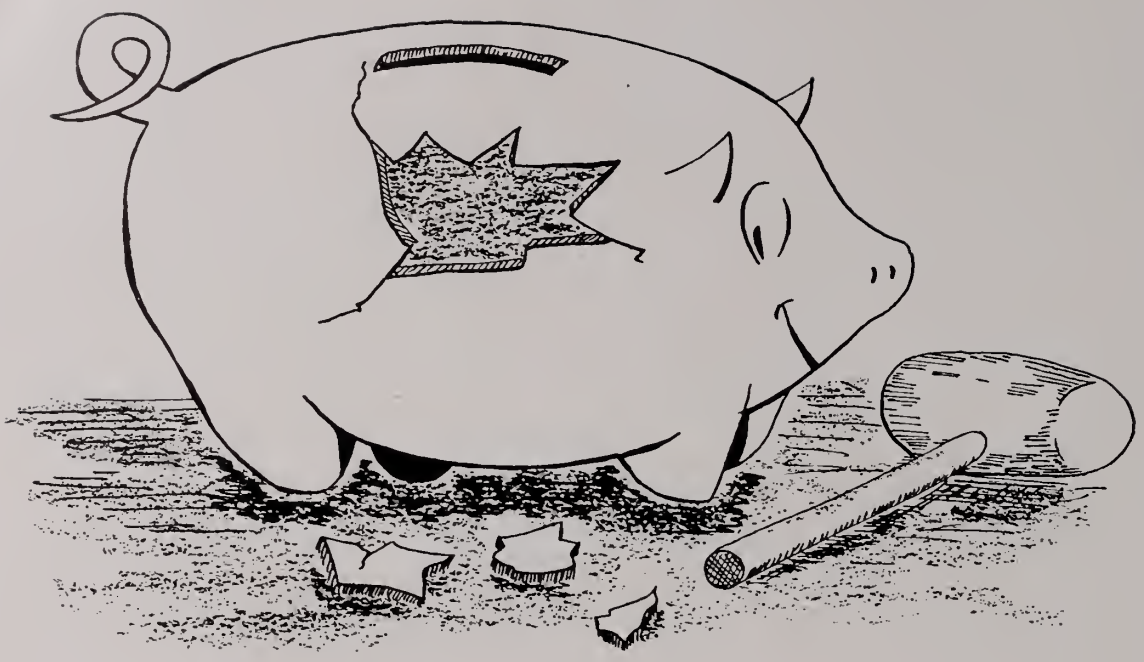
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Supplied: Capsules, vials of 36. Each capsule contains: penicillin V (100,000 units), 62.5 mg.; salicylamide, 194 mg.; promethazine HCl, 6.25 mg.; phenacetin, 130 mg.; mephentermine sulfate, 3 mg.

PEN·VEE·Cidin®

Penicillin V, Salicylamide, Promethazine Hydrochloride, Phenacetin, Mephentermine Sulfate

Wyeth®
Philadelphia 1, Pa.



The Case of the Pretty Penny

JUNIOR at the soda fountain and the cost engineer presenting an estimate may differ in sum and total when determining what constitutes a "pretty penny," but in the final analysis they both might be correct. For they both certainly would agree that it was not the amount of money spent but the value of the purchase that decided. The towering skyscraper, the chocolate soda—each fills an inestimable need; yet they are far apart on the economic scale.

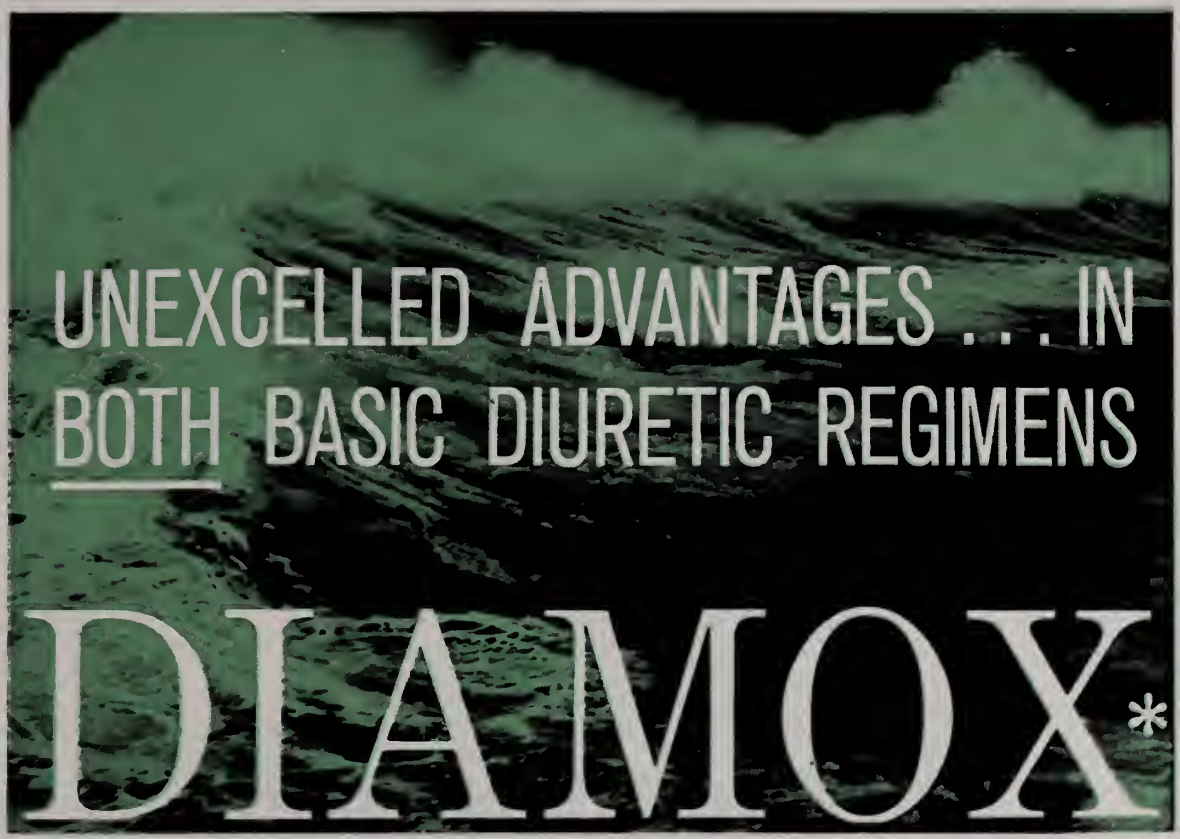
Calculating the cost of alcoholism, too, presents differing viewpoints. Ask society and the answer comes back "Over a billion dollars annually." Or ask the alcoholic. Then listen while he totals the countless heartaches with broken days and wasted nights. Each penny spent gains a brighter hue in the light of a billion dollars when one is purchasing a lifetime of sobriety. For then, the "pretty penny" reflects its true value.

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SPECIALISTS IN TREATMENT OF ALCOHOLISM BY THE CONDITIONED REFLEX, NARCOTHERAPY AND ADJUVANT METHODS.

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bicarbonate-regulating diuretic

Acetazolamide Lederle

HOW DIURETICS ACT

Primarily by regulation of bicarbonate transport	DIAMOX acetazolamide
Primarily by regulation of chloride transport	mercurials chlorothiazide

1

Advantages of DIAMOX in single-drug diuresis

DIAMOX — operating through the well-understood mechanism of *bicarbonate* transport regulation—provides ample, prolonged diuresis in the great majority of patients.

DIAMOX is virtually nontoxic . . . has not caused renal or gastric irritation . . . has no pronounced effect on blood pressure. It is rapidly excreted, does not accumulate in the body, permits convenient dosage adjustment, allows unbroken sleep. Small, tasteless, easy-to-take tablets . . . usual dosage, only one a day.

- CARDIAC EDEMA
- PREMENSTRUAL TENSION
- EDEMA OF PREGNANCY
- OBESITY

2

Advantages of DIAMOX in intensive, two-drug diuresis

When intensive diuresis must be maintained, DIAMOX, alternated with an agent for regulation of *chloride* transport, has proved a regimen of choice. Through dual *bicarbonate-chloride* regulation, it produces maximal sodium-water excretion with minimal distortion of serum electrolyte patterns, greater patient comfort, lessened risk of induced drug resistance.

- ADVANCED CONGESTIVE HEART FAILURE
- REFRACTORY TOXEMIA OF PREGNANCY

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

*Reg. U. S. Pat. Off.

in peptic ulcer



KOLANTYL: with 4 needed healing actions

1. vital antispasmodic action—BENTYL—Merrell's fast, safe antispasmodic . . . relieves spasm-pain promptly, without atropine-like side effects. 2. balanced acid-neutralizing action — magnesium oxide and aluminum hydroxide—prompt, long-lasting relief . . . no laxation, no constipation. 3. demulcent action—Methylcellulose—soothing protective coating covers ulcerated area, promotes healing. 4. antienzyme-antipepsin action—Sodium Lauryl Sulfate — effectively curbs necrotic effects of pepsin and lysozyme . . . prevents further erosion. Dosage—Gel: 2 to 4 teaspoonfuls every 3 hours, or as needed. Tablets: 2 tablets (chewed for more rapid action) every 3 hours, or as needed. **NON-CONSTIPATING . . . NON-LAXATING**

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THE WM. S. MERRELL COMPANY
New York · CINCINNATI · St. Thomas, Ontario
Another Exclusive Product of Original Merrell Research

Formula: Each tablet or 10 cc. gel contains:
Bentyl (dicyclomine) Hydrochloride . . . 5 mg. / Aluminum Hydroxide Gel, Dried . . . 400 mg. / Magnesium Oxide, Heavy . . . 200 mg.
Sodium Lauryl Sulfate . . . 25 mg. / Methylcellulose . . . 100 mg.



all cold symptoms

New timed-release tablet provides:

...the superior decongestant and antihistaminic action of Triaminic

...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks

...an expectorant to augment demulcent fluids

...the specific antipyretic and analgesic effect of well-tolerated APAP

...the prompt and prolonged activity of timed-release medication

Each* TUSSAGESIC *Tablet contains:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.;
pheniramine maleate	12.5 mg.;
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextro-methorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-para-aminophenol)	325 mg.

Tussagesic Tablets provide relief from *all* cold symptoms in minutes, lasting for hours.

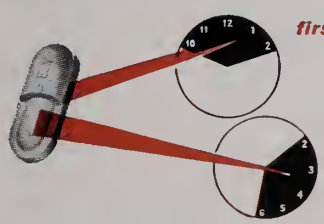
Dosage: One tablet in the morning, mid-afternoon, and in the evening, if needed. The tablet should be swallowed whole to preserve the timed-release action.

To reduce upper respiratory congestion and irritating secretions.

For non-narcotic control of the cough reflex.

To augment demulcent respiratory secretions.

For specific, highly effective antipyresis and analgesia.



Also available—for those who prefer palatable liquid medication—

Tussagesic suspension

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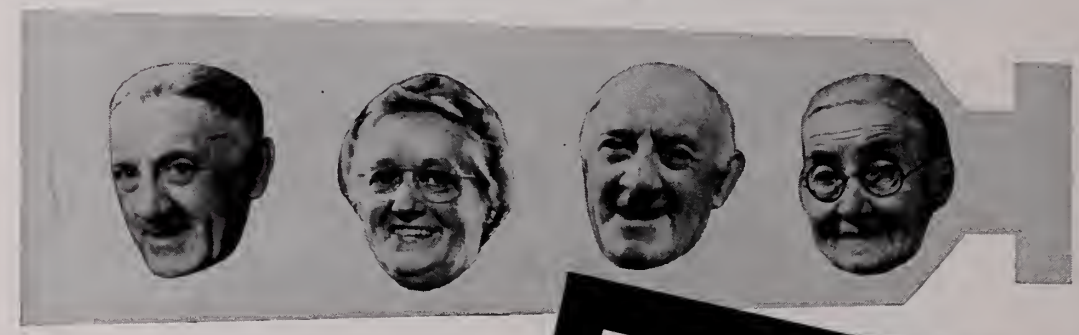
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for JUNIOR and SENIOR citizens



DESITIN®
OINTMENT
rich in **cod liver oil**



in pediatrics

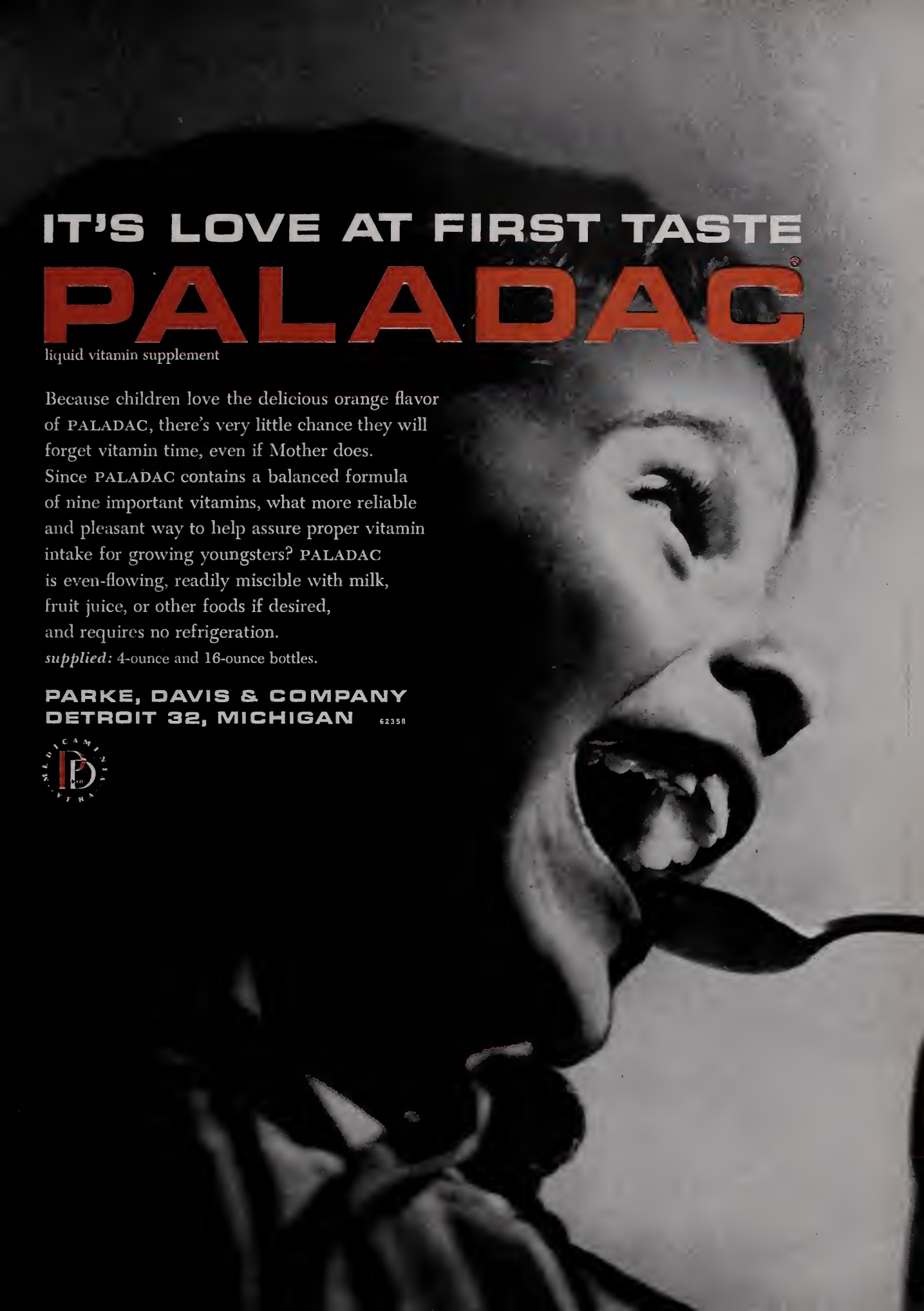
Desitin Ointment is unequalled in preventing and clearing up **diaper rash,** excoriation, irritation, chafing.

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an incomparable protectant and healing agent against excoriation due to incontinence; senile pruritus, excessive skin dryness.

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Belladonna Extract . . . . . 1/8 gr.*
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Phenabarbital . . . . . 1/4 gr.
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Belladonna Extract . . . . . 1/8 gr.*
Phenabarbital . . . . . 1/2 gr.
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Robins



—the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

Supply: Tablets (white, scored), 0.5 Gm., bottles of 50 and 500.

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Ethical Pharmaceuticals of Merit since 1878

Summary of four new published clinical studies:

Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1, 2, 5, 6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

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"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL of the American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL of the American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

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"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

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OREGON

BENTON COUNTY
Pres., Charles E. Reed, Corvallis
Sec., J. N. Furst, Corvallis
First Monday—6:30 p.m.—Benton Hotel, Corvallis

CENTRAL OREGON
Pres., Harry E. Mackey, Bend
Sec., Eugene L. White, Bend
First Monday—7:30 p.m.—Pine Tavern, Bend

CLACKAMAS
Pres., Hollister M. Stolte, Oregon City
Sec., Daniel K. Billmeyer, Oregon City
First Tuesday—6:30 p.m.—Seid's Restaurant, Oregon City

CLATSOP COUNTY
Pres., William M. Burget, Astoria
Sec., Charles K. Linehan, Astoria
Meetings irregular

COLUMBIA COUNTY
Pres., Eugene P. Tupker, St. Helens
Sec., O. L. Zeschin, St. Helens
No regular schedule—7 p.m.—St. Helens

DOUGLAS COUNTY
Pres., Robert R. Mooers, Roseburg
Sec., William D. Holst, Roseburg
Second Tuesday—6:30 p.m.—Roseburg Country Club

EASTERN OREGON
Pres., Jules F. Bittner, Portland
Sec., J. Ralph McDonald, Pendleton
Annual Meeting Only—June—Pendleton

JACKSON COUNTY
Pres., Oscar A. Heyerman, Medford
Sec., Earl L. Lawson, Medford
Second Wednesday—7 p.m.—Rogue Valley Country Club

KLAMATH COUNTY
Pres., William G. Holford, Jr., Klamath Falls
Sec., Robert D. Payne, Klamath Falls
Second Tuesday—7 p.m.—Klamath Falls

LANE COUNTY
Pres., Keith D. McMilan, Eugene
Sec., Virgil W. Samms, Eugene
First Tuesday—6:30 p.m.—Eugene Hotel

LINN COUNTY
Pres., H. P. O'Neill, Albany
Sec., Robert I. Daugherty, Lebanon
First Thursday—6:30 p.m.—Red Hat Cafe, Albany

MID-COLUMBIA
Pres., W. T. Edmundson, Hood River
Sec., John M. Campbell, The Dalles
Second Tuesday—6:30 p.m.—Alternate between Hood River & The Dalles

MULTNOMAH COUNTY
Pres., Werner E. Zeller, Portland
Sec., Verner V. Lindgren, Portland
First Tuesday (Oct., Nov., Dec., Feb., Mar., May)—6 p.m.—Hotel Multnomah

SOUTHWESTERN OREGON
Pres., Paul E. Parker, North Bend
Sec., Douglass S. Johnson, Coos Bay
Third Wednesday—8 p.m.—Coos Country Club

TILLAMOOK COUNTY
Pres., Howard Kaliher, Tillamook
Sec., J. P. Brady, Tillamook
Third Friday—7 p.m.—Victory House

UMATILLA COUNTY
Pres., Louis J. Feves, Pendleton
Sec., Donald D. Smith, Pendleton
Third Tuesday—7:30 p.m.—Pendleton Country Club

UNION COUNTY
Pres., Donald F. Otten, La Grande
Sec., Webster K. Ross, La Grande
On call of President

WASHINGTON COUNTY
Pres., Herbert Mason, Beaverton
Sec., N. D. Smith, Beaverton
First Monday—8 p.m.—Forrest Hills Country Club, Cornelius

YAMHILL COUNTY
Pres., Clifford C. Peterson, Newberg
Sec., Louis L. Geary, McMinnville
First Tuesday—7 p.m.—Oriental Garden, McMinnville

WASHINGTON

BENTON-FRANKLIN
Pres., Jack D. Freund, Kennewick
Sec., Charles G. Sutch, Richland
Third Tuesday—8:00 p.m.—Tri-City Country Club

CHELAN
Pres., Donald Phillips, Wenatchee
Sec., Robert Bonifaci, Wenatchee
First Monday—6:30 p.m.—Wenatchee Golf & Country Club

CLALLAM
Pres., John Siemens, Port Angeles
Secy., K. M. Senz, Sequim
Third Monday—8:00 p.m.—Generally Olympic Memorial Hospital, Port Angeles

CLARK
Pres., G. W. Turley, Ridgefield
Sec., Emil W. Brooking, Camas
First Tuesday—7:30 p.m.—Royal Oaks Country Club, Vancouver

COWLITZ
Pres., Marion A. Clark, Jr., Longview
Sec., Powell B. Loggan, Longview
Third Tuesday—7:30 p.m.—Place not established

GRANT
Pres., R. M. Gill, Moses Lake
Sec., Wayne L. Piper, Ephrata
Second Monday—7:30 p.m.—Moses Lake or Ephrata

GRAYS HARBOR
Pres., E. L. Calhoun, Aberdeen
Sec., James A. Moore, Montesano
Third Wednesday—6:30 p.m.—Grays Harbor Country Club

JEFFERSON
Pres., Bruce N. Brydges, Port Townsend
Sec., Clayton M. Schaill, Port Townsend

KING
Pres., Dean K. Crystal, Seattle
Sec., Hugh W. Jones, Seattle
First Monday—6.30 p.m.—Norselander Hall, Seattle

KITSAP
Pres., E. J. Munns, Bremerton
Sec., J. T. Turpin, Bremerton
Second Monday—8 p.m.—Harrison Memorial Hospital, Bremerton

KITTITAS
Pres., A. J. Grose, Ellensburg
Sec., William W. Hicks, Ellensburg
First Tuesday—7:30 p.m.—Ellensburg Golf & Country Club

KLICKITAT-SKAMANIA
Pres., Robert Becker, Goldendale
Sec., Harland W. Holderby, Goldendale
No regular meetings

LEWIS
Pres., W. J. Dugaw, Toledo
Sec., C. M. VanProoyen, Centralia
Second Monday—8:00 p.m.—local hospital in Chehalis or Centralia, alternately

LINCOLN
Pres., Jesse Q. Sewell, Harrington
Sec., J. E. Anderson, Wilbur
Three times annually—Dec. 1958 next meeting

OKANOGAN
Pres., Harold W. Lamberton, Brewster
Sec., Charles O. Mansfield, Okanogan
On call

PACIFIC
Pres., David D. Bronder, Long Beach
Sec., Robert A. Bussabarger, Raymond
Second Wednesday—6:30 p.m.—Bridges Inn, Raymond

PIERCE
Pres., Herman S. Judd, Tacoma
Sec., Arnold J. Herrmann, Tacoma
Second Tuesday—8:15 p.m.—Medical Arts Bldg. Auditorium, Tacoma

SKAGIT
Pres., Eldee L. Schneider, Mt. Vernon
Sec., Maynard L. Johnson, Mt. Vernon
Fourth Monday—7 p.m.—Dale's Restaurant, Mt. Vernon

SNOHOMISH
Pres., Kenneth O. Barnes, Marysville
Sec., James R. Otto, Everett
First Tuesday—7:30 p.m.—Everett Golf & Country Club

SPOKANE
Pres., Joseph C. Hathaway, Spokane
Sec., Joseph B. Finney, Spokane
Second Thursday—7:30 p.m.—Blood Bank Auditorium, Spokane

STEVENS
Pres., W. J. Stark, Colville
Sec., Merle B. Snyder, Chewelah
First Tuesday—8 p.m.—Chewelah and Colville alternately

THURSTON-MASON
Pres., Jean M. Burkhart, Olympia
Sec., Thomas R. Hazelrigg, Olympia
Fourth Tuesday—Olympia Country and Golf Club

WALLA WALLA VALLEY
Pres., Robert A. Campbell, Walla Walla
Sec., John B. Adams, Walla Walla
Second Thursday—6:30 p.m.—Grand Hotel, Walla Walla

WHATCOM
Pres., Neil D. Adams, Bellingham
Sec., Donald H. Boettner, Bellingham
First Monday—7 p.m.—Leopold Hotel, Bellingham

YAKIMA
Pres., Fred L. Burrows, Yakima
Sec., Stanley R. Durham, Yakima
Second Tuesday—6:30 p.m.—Bennington's Holiday Restaurant, Yakima

IDAHO

BEAR RIVER
Pres., E. E. Herron, Grace
Sec., Allen H. Tigert, Soda Springs
First Friday—7:30 p.m.—Meetings rotate—Preston, Soda Springs and Montpelier

BONNER-BOUNDARY
Pres., Helen Peterson, Sandpoint
Sec., Fred Marineau, Sandpoint
Second Wednesday—12:30 p.m.—Bonner General Hospital, Sandpoint

IDAHO FALLS
Pres., Curtis Waid, Idaho Falls
Sec., James Douglas Davis, Idaho Falls
Second Friday—Every other month—6 p.m.—Bonneville Hotel

KOOTENAI-BENEWAH
Pres., D. Theron Knight, Coeur d'Alene
Sec., E. R. W. Fox, Coeur d'Alene
First Tuesday—6:30 p.m.—Announced in advance of meeting

NORTH IDAHO
Pres., E. J. Baldeck, Lewiston
Sec., Lester Crismon, Lewiston
Third Wednesday—6:30 p.m.—Ballinger Hotel, Lewiston

SOUTH CENTRAL
Pres., Bernard L. Kreilkamp, Twin Falls
Sec., Fred T. Kolouch, Twin Falls
Second Tuesday—7:30 p.m.—Varied

SOUTHEASTERN
Pres., Louis G. Bush, Pocatello
Sec., John E. Comstock, Pocatello
Thursday (announced)—7 p.m.—Bannock Hotel, Pocatello

SOUTHWESTERN
Pres., Ralph R. Jones, Boise
Sec., Glenn E. Talboy, Boise
Thursdays—Announced in advance of meeting

UPPER SNAKE RIVER
Pres., W. A. Melcher, Ashton
Sec., B. H. Passey, Rexburg
First Monday—Dinner meeting—7:30 p.m.—Variable

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Monthly report on most recent introductions by the pharmaceutical industry.

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Prophylaxis and treatment of mixed infections of the respiratory, gastrointestinal and urinary tract.

Sinutab Tablets (Warner-Chilcott)
For relief of sinus headache and congestion.

Phenistix Reagent Stick (Ames)
Designed for the detection of phenylketonuria.

Vas I Zinc Eyedrops (Ophthalmos)
Antiseptic and decongestant eye drops.

Adrenalex Capsules (Darwin)
A balanced hormone, vitamin and hematopoietic substances for menopausal and geriatric patients.

Neo-Thalidine Granules (Merck, Sharp & Dohme)
An internal antiseptic for preoperative preparation of the bowel; a virtual sterile bowel resulting in 18 to 20 hours.

Bradosol Lozenges (Ciba)
For temporary relief of minor sore throat and mouth irritation due to common cold.

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For vasospastic and obliterative disorders, including intermittent claudication, leg ulcer and Raynaud's disease.

A.F.F. Tablets (Invenex)
For iron deficiency anemia.

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For treatment of diarrhea in both children and adults.

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For treatment of a wide range of infections of the respiratory, gastrointestinal and urinary tracts.

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For relief of acne and wherever topical sulfur is used.

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Symptomatic relief of many manifestations of the allergic state.

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For bacterial infections.

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For a wide variety of skin infections and irritations.

Kryl Tablets (Ayerst)
For symptomatic relief of the common cold.

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For URI, urinary tract, systemic and soft tissue infections caused by susceptible microorganisms.

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Protaminal Tablets (Brewer)
A dietary supplement.

Protef Suppositories (Upjohn)
For treatment of infections and irritations in the rectal region.

Salundek Solution (Maltbie)
For treatment of ringworm of the scalp (tinea capitis).

Tao-AC Capsules (Roerig)
For treatment of the common cold and URI.

Temaril Syrup (Smith, Kline & French)
For relief of itching regardless of cause.

Vio-Geric H Tablets (Rowell)
For nutritional supplementation and hormonal replacement.

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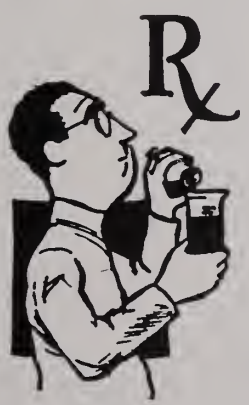
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North Pacific Society of Internal Medicine ..... **Seattle**
March 21, 1959
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Pacific Northwest Society of Pathologists ..... **Priest Lake, Idaho**
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Seattle Surgical Society ..... **Jan. 30-31, 1959**
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Spokane Academy of General Practice ..... **Dec. 6, 1958**
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Pres., O. C. Olson Sec., R. P. Parker

Spokane Surgical Society ..... **April 11, 1959**
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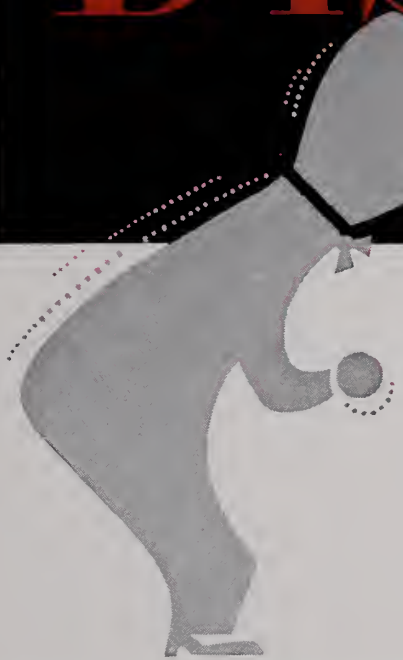
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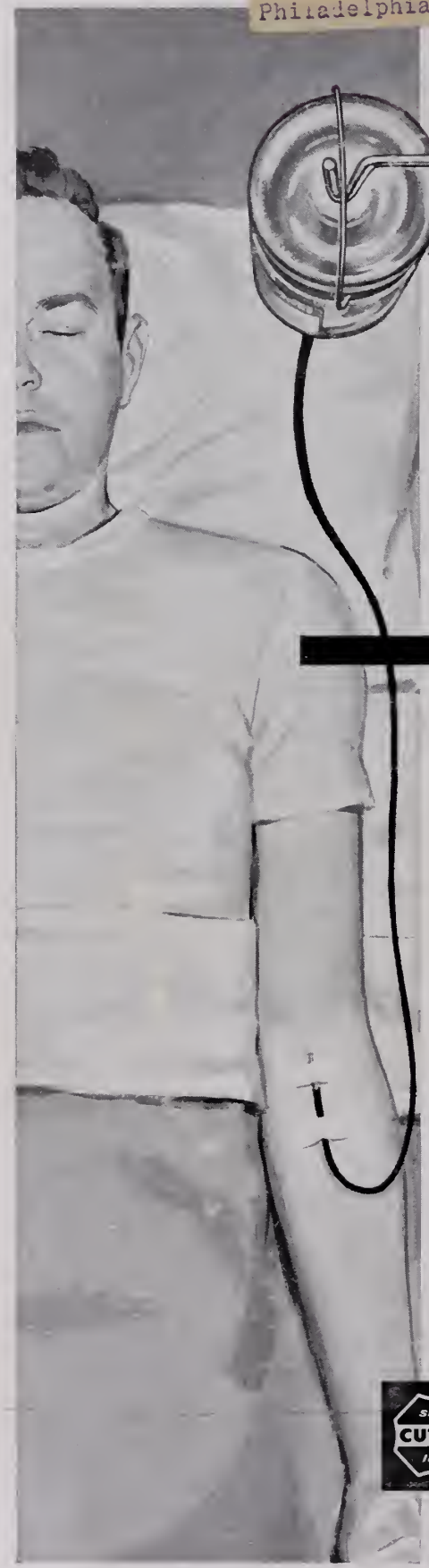
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FRACTURES OF THE PATELLA
CARE OF THE URINARY BLADDER
DIET AND CORONARY HEART DISEASE
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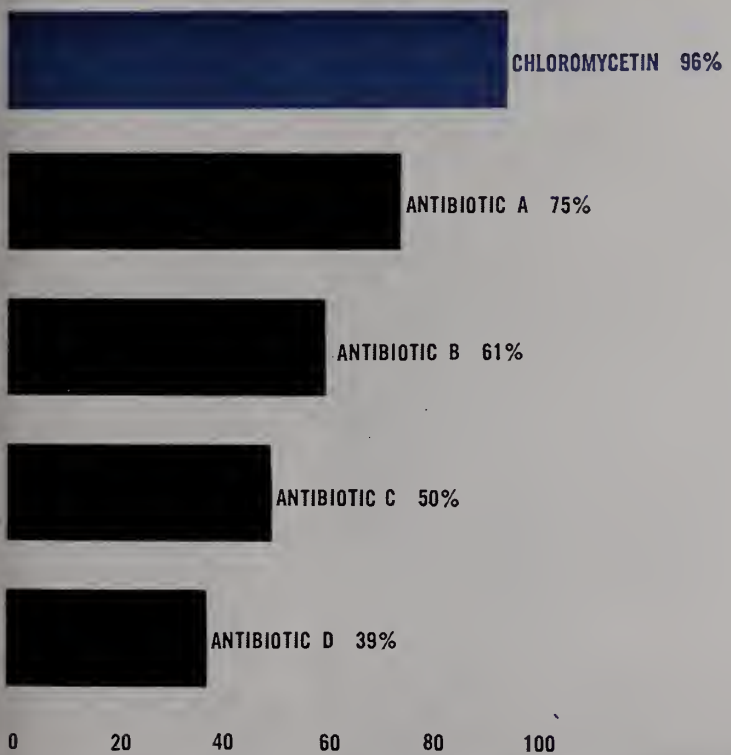
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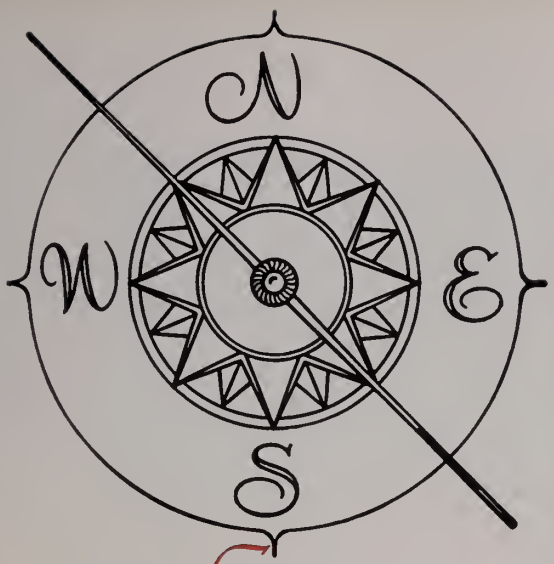
Supplied: Bottles of 50 scored tablets.

1. Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. 2. Current personal communications; in the files of Wallace Laboratories.

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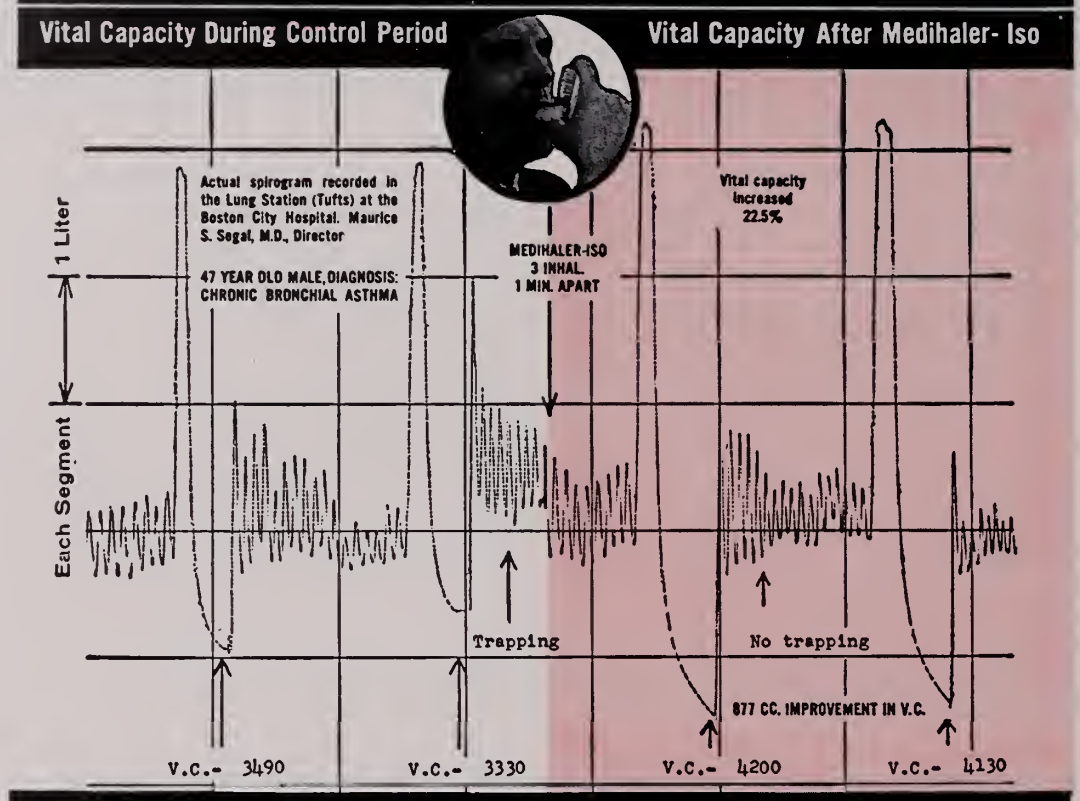
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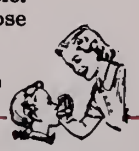
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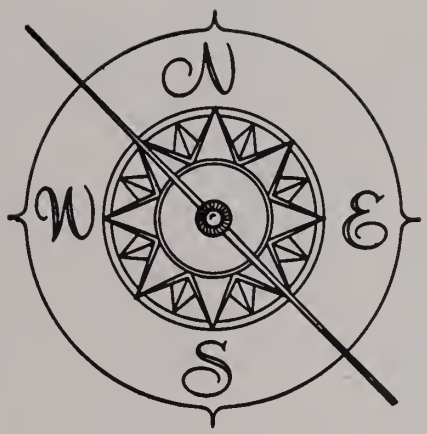
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But clinical studies show that a young infant requires a formula of 2 ounces of whole milk (40 calories), a teaspoon of Karo Syrup (15 calories), and a half-ounce of added water *per pound of body weight per day*. Of the total calories, a successful formula yields about 15-20% in protein, 50-60% in carbohydrate, and 25-35% in fat. Whole milk must be reinforced by adding 5% to 10% carbohydrate (1) to provide protein-sparing effect which permits protein anabolism instead of energy production; (2) sufficient calories for tissue formation; (3) proper utilization of fat; (4) suitable acid-base relationships in the intestinal tract and (5) adequate weight gains.

WHOLE MILK FORMULAS

Age Months	Whole Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812

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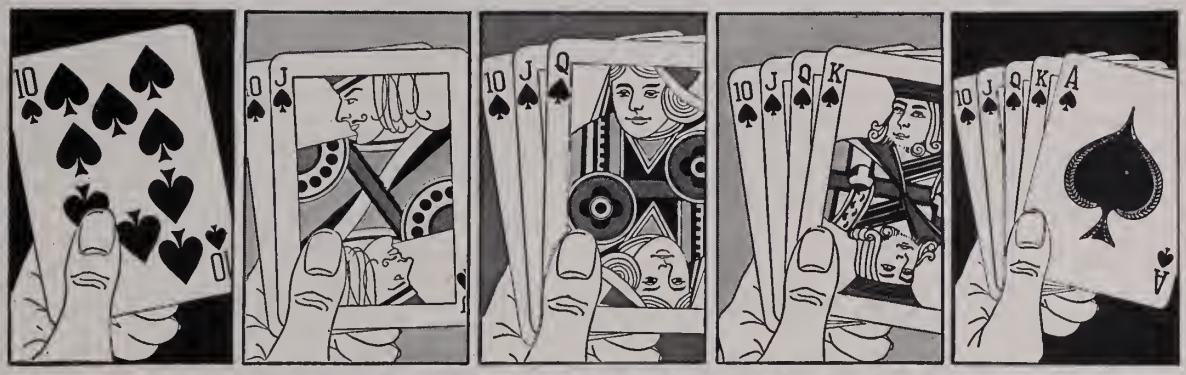
Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

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Ammonium Chloride		60 mg.
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Exactly how does new Halodrin* restore the "premenopausal prime" in postmenopausal women?

Webster defines "prime" as the period of greatest health, strength, and beauty. In a woman, these are the childbearing years between puberty and menopause—the years when her hormone production is highest.

The inevitable reduction in this hormone production as she enters the menopause often results in physical discomfort in the form of hot flushes, nervousness, insomnia, or a multiplicity of other symptoms with which you are familiar. Superimposed on this physical picture is the psychic trauma brought on by this unavoidable evidence of aging. The thing that brings her to a physician is simply that she "feels bad."

You can't make her 35 again—but the odds are good that you can make her feel like it! The secret is a combination of reassurance and hormones. The exact form and amount of the former defy objective analysis, but the latter can now be provided with scientific precision. Reduced to essentials, here is the explanation of exactly how hormones—in the form of Upjohn's new Halodrin—restore the "premenopausal prime."

The normal premenopausal woman secretes estrogens in the urine in the form of estradiol, estrone, and estriol, in an approximate 28-day average ratio of 39:15:46. Starting with this urinary excretion of estrogens, it is possible to calculate backwards and estimate the amount of estradiol that must have been secreted endogenously in order to produce these urinary levels. This is possible because the proportion of estrogens which appears in the urine following parenteral administration has been established in castrated women.

On this basis, the average endogenous output of estrogens is about 160 micrograms per day during a menstrual cycle, and 80 micrograms per day in postmenopausal women (see chart opposite). Therefore, the restoration of the "premenopausal prime" in the postmenopausal woman requires the replacement of approximately the equivalent of the 80 micrograms of estradiol per day that she no longer secretes endogenously.

Oral ethinyl estradiol is about 2 to 2½ times as potent as parenteral estradiol. Therefore, the replacement of 80 micrograms of endogenous estradiol production per day is accomplished by the oral administration of 32 to 40 micrograms of ethinyl estradiol per day.

Each Halodrin tablet contains 20 micrograms of ethinyl estradiol, which means that the recommended dosage of 2 tablets per day provides 40 micrograms of ethinyl estradiol. This offsets the loss of 80 micrograms of endogenous estradiol production in the menopausal woman; i.e., restores the "premenopausal prime."

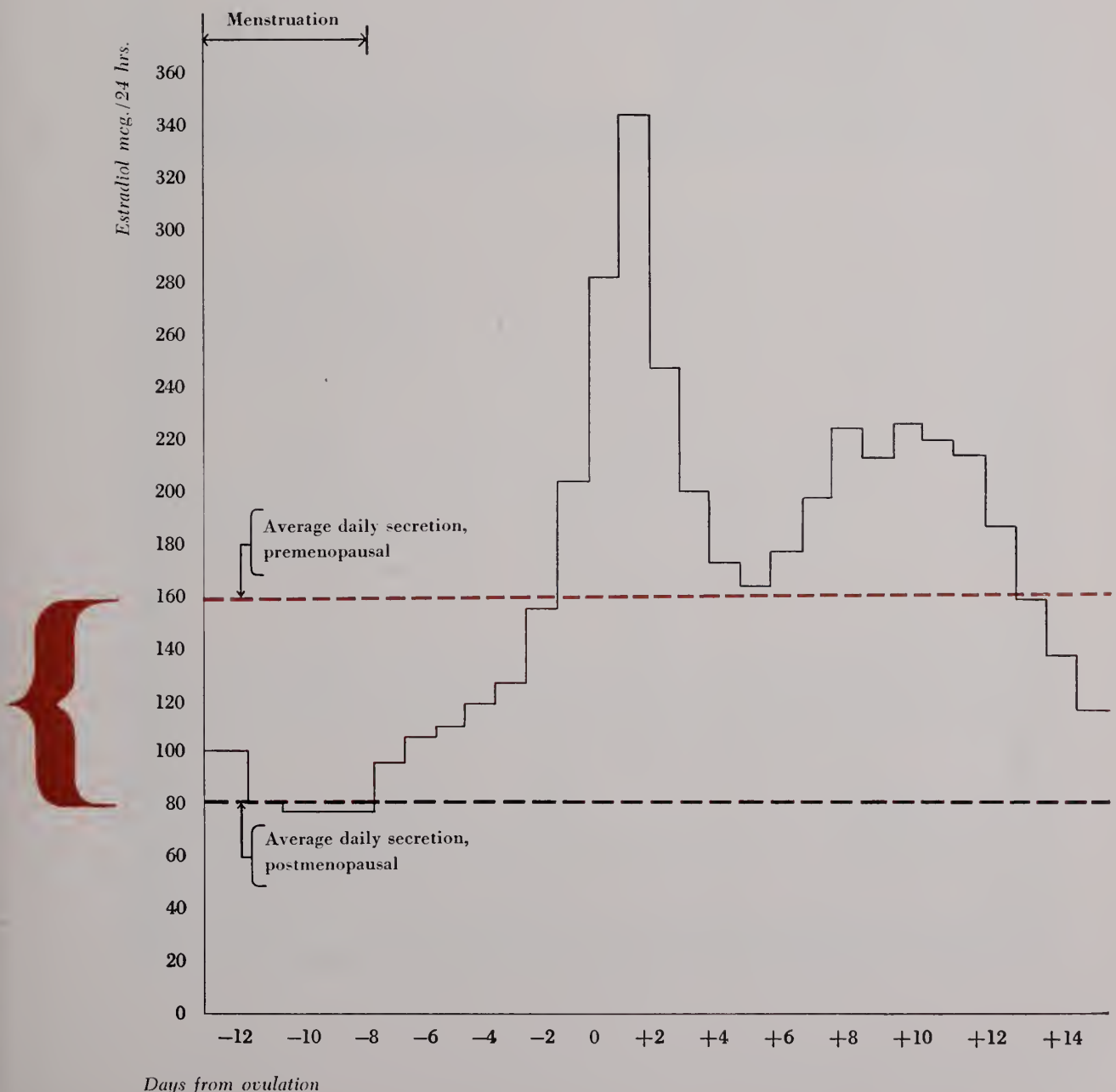
Each Halodrin tablet also contains 1 mg. of Upjohn-developed Halotestin* (fluoxymesterone)—the most potent oral androgen known. The primary purpose is to "buffer" the ethinyl estradiol just enough to prevent breakthrough bleeding, which is obviously undesirable in the menopause. It also exerts other beneficial hormonal effects, one of which, in common with ethinyl estradiol, is a powerful anabolic action so desirable in patients of advanced years.

Upjohn

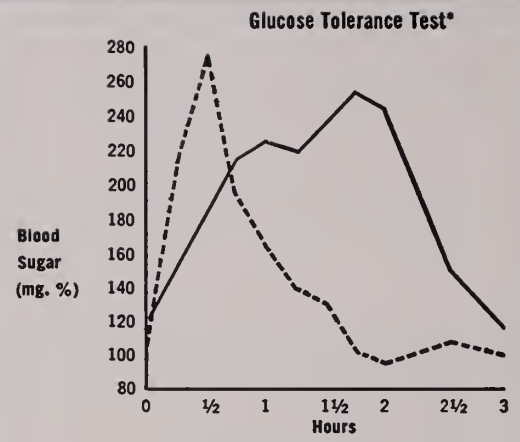
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Endogenous estrogen secretion (mcg./24 hours)
(calculated from average 24-hour urinary excretion of estradiol, estrone, and estriol)



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*Constam, G. R.: Northwest Med. 56:919, 1957.

besides diabetes, what diseases may cause symptoms of polyuria, polydipsia, increased fatigability and loss of weight?

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relief can be expected . . . even in patients where other antispasmodics have failed.[1-3]

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1. Chamberlain, D. T.: Gastroenterology *17*:224, 1951. 2. Hock, C. W.: J.M.A., Ga. *43*:124, 1951. 3. Derome, L.: Canad. M.A.J. *69*:532, 1953. 4. Cholst, M., Goodstein, S., Berens, C., and Cinotti, A.: J.A.M.A. *166*:1276, 1958.

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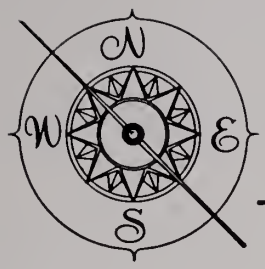
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Acetylsalicylic acid 200 mg.,
Acetophenetidin 130 mg., Caffeine 40 mg.

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CORRESPONDENCE

AMA Speaks Out

Action of the House, referred to by Dr. Gundersen in the letter below, was decisive rejection of a reference committee report and demand for immediate action to oppose activities of certain closed panel groups. See pages 1065 and 1068 in the August issue for report of this phase of the June meeting at San Francisco. For the type of activity giving rise to the House action, see the editorial, Typical Attack, in this issue. Ed.

La Crosse, Wisconsin

EDITOR, NORTHWEST MEDICINE:

As directed by the House of Delegates, the American Medical Association currently is engaged in a broad educational campaign to acquaint the profession and the public on "the benefits to be derived from preservation of the American right to freedom of choice of physicians . . ."

This campaign actually is two-fold. The first phase—to the profession—stresses the inherent dangers of third party encroachment on the private practice of medicine and urges medicine to re-emphasize the importance of policing our ranks and in preserving the high quality of medical care America enjoys today.

The second campaign—geared to the general public—emphasizes the following areas: (1) The patient should have the right to choose his personal doctor; (2) The benefits to be gained from a close personal doctor-patient relationship, and (3) The need for selecting a personal phyisician before you are sick.

The AMA has published several informational pieces on free choice directed to the medical profession—in my president's message in the September 27 issue of the *Journal of the AMA* and in the October 20 issue of the *AMA News*.

We hope you will cooperate with us in implementing the House of Delegates action on benefits derived from freedom of choice.

Sincerely,
Gunnar Gundersen, M.D.
President, American Medical Association

Itinerant Surgery

Bremerton, Washington

EDITOR, NORTHWEST MEDICINE:

It has recently been my privilege to serve on a Committee interviewing applicants for admission to the American College of Surgeons. It was in all a pleasant experience and extremely heart warming to see and meet the individuals interested in joining the American College of Surgeons. These, without exception, were men of considerable training, doubtless good surgical technicians, and men of sound moral and ethical purpose. Our Committee does not have the power to accept or reject applicants. It is merely a fact-finding Committee and, as such, is interested in all the factors that make safe surgeons. It is not therefore surprising that in our interviews we discussed some of the unsolved ethical problems facing the surgical world today. One of these received more than casual comment and needs thoughtful consideration—the itinerant surgeon.

There is little doubt in my mind that the occasional case in the smaller community can be well handled by the visiting surgeon. There are times and circumstances when it may be an undue hardship for a patient to leave his own community and have his surgery elsewhere. But, in general, if a patient cannot be under the continued care of his surgeon and becomes the recipient of divided responsibility, sooner or later such a patient will suffer. Unfortunately, and yet understandably, the actual operation or surgical procedure has received too much attention, and the less spectacular but equally important preoperative appraisal and postoperative conduct through a surgical experience, received little or no consideration.

My former surgical chief, the beloved and eminent Allan O. Whipple, used to stress the fact that surgery begins long before the actual operation and continues long after. The operation represents merely an act or a scene in the total drama and not necessarily the most important one. Dr. Whipple did not want to meet his patient for the first time in the operating room, and busy as he was, he did not wish to relegate to others the responsibility of preventing or mitigating postoperative difficulties. He wanted to be present in those distressing postoperative moments when a word of encouragement or a kindly but stern word of advice might alter significantly the course of his patient. To be sure, others could do the same, but he felt the responsibility. It was not unusual to see this great man return to the hospital at midnight to check on some ward patient upon whom he had performed an important operation the preceding morning. He could have called the ward nurse or the surgical resident by telephone, but he seemed to prefer to see for himself that all was well, and on many occasions these postoperative calls were extremely rewarding to his patient.

Although the expression, "itinerant surgery," was not used until recently, it was in the past a common practice and justifiably so. Transportation of patients was difficult and surgeons were few. It was easier then to bring the surgeon to the patient and hope for the best than to bring the patient to the surgeon and compound the difficulties of all, but now the situation has changed. Transportation to surgical areas is not difficult, and

(Continued on page 1576)

(Continued from page 1575)

although high-powered facilities and surgical centers are not always necessary, frequently good postoperative care is impossible in the small, understaffed and inadequately-equipped suburban hospital.

One of the interesting facts about itinerant surgery needs special comment. With few exceptions this type of surgery is done by young men—often well trained. These young men, finding themselves not too busy, are easily enticed to small communities to carry out surgery on a part-time basis. There is, of course, a strong economic factor and all too often this may lead to a pernicious type of barter. It is not strange that when these young surgeons become busy in their city practices, they cease their itinerant ways and at this point they generally admit that it was unwise and that they are glad to be released from it. However, a certain amount of damage has already been done.

Despite the fact that the patients of itinerant surgeons may do reasonably well, the practice of itinerant surgery often leads to a type of informal and haphazard training in small communities where untrained physicians, working under itinerant surgeons, proceed to do more and more surgery on a local level. Frequently this proves to be disastrous.

What then shall we conclude about itinerant surgery? At times it will be permissible, but as a general measure, in my opinion, it should be condemned. For those itinerant surgeons, who would aspire to the American College of Surgeons, the greatest surgical institution on earth, let them bear the burden of proof that the practice is justified.

R. O. Diefendorf, M.D.

Clarification

Oregon Arthritis and Rheumatism Foundation, Inc.
Lumbermans Building
Portland 4, Oregon

EDITOR, NORTHWEST MEDICINE:

This letter is sent to you to clarify the position of the Oregon Arthritis and Rheumatism Foundation. It is part of the Arthritis and Rheumatism Foundation founded ten years ago under the auspices of the physicians composing the American Rheumatism Association. Organized medicine has always had the most prominent voice in the formation of policy and practice, through County and State Medical Societies.

Recently the National Foundation for Infantile Paralysis announced a change in name to the National Foundation and an intention to include arthritis (and other conditions with popular appeal) in its sphere. The Arthritis and Rheumatism Foundation initiated negotiations to combine the activities of the two groups. After months of negotiation, it became apparent that the NFIP contemplated no change in policy with its change in name, and that many of its present policies were totally unacceptable to the majority of the members of our medical committees. The Inter-Chapter Medical Advisory Committee, at its meeting in San Francisco in June, therefore made the following recommendation:

> We recommend that the Arthritis and Rheumatism Foundation and its Chapters continue their programs and committments. While we are receptive to any new aid in this field, we are of the opinion that the Arthritis and Rheumatism Foundation is a strong, healthy, growing body and should continue its present policies and vigorously expand its program.

None of the lay or professional members of our organization have expressed the slightest dissatisfaction with this recommendation.

R. E. Rinehart, M.D.

Waste

Seattle, Washington

EDITOR, NORTHWEST MEDICINE:

There have been newspaper reports that King County Hospital and the State Welfare Program are in financial difficulties.

I realize there are many factors responsible for this, but recently my attention was drawn to a case where apparently there was an unnecessary waste of public money.

A boy, age 4, who is on welfare, was admitted to King County Hospital for a routine planned circumcision. The physical examination was negative. The surgery was not done until the *fifth* day following admission. He was discharged the day following surgery. The mother of the child could not understand the reason for this delay nor could I after reading his hospital chart.

Four unnecessary days in a hospital waiting for a circumcision. Can you imagine what the parents' reaction would have been, had this been a private case?

The newspaper stated that services may have to be curtailed. Why not curtail the wastage instead?

Yours truly,
A. Searle, M.D.



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in dosage reduction

Thanks to this unprecedented potency, DECADRON is "highly effective in suppressing the manifestations of rheumatoid arthritis when administered in remarkably small daily milligram doses."[3] In a number of cases, doses as low as 0.5-0.8 mg. proved sufficient for daily maintenance. The average maintenance dosage in rheumatoid arthritis is about 1.5 mg. daily.

in elimination and reduction of side effects

Virtual absence of diabetogenic activity, edema, sodium or water retention, hypertension, or psychic reactions has been noted with DECADRON.[1,2,3,4] Other "classical" reactions were less frequent and less severe. DECADRON showed no increase in ulcerogenic potential, and digestive complaints were rare. Nor have there been any new or "peculiar" side effects, such as muscle wasting, leg cramps, weakness, depression, anorexia, weight loss, headache, dizziness, tachycardia, or erythema. Thus DECADRON introduces a new order of magnitude in safety, unprecedented in corticosteroid therapy.

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With DECADRON, investigators note "a decided intensification of the anti-inflammatory activity"[3] and antirheumatic potency.[4] Clinically, this was manifested by a higher degree of improvement in many patients previously treated with prednisteroids,[3] and by achievement of satisfactory control in an impressive number of recalcitrant cases.[3,4]

in therapeutic range

More patients can be treated more effectively with DECADRON. Its higher anti-inflammatory potency frequently brings relief to cases resistant to other steroids. Virtual freedom from diabetogenic effect in therapeutic dosage permits treatment of many diabetics without an increase in insulin requirements. Absence of hypertension and of sodium and fluid retention allows effective therapy of many patients with cardiovascular disorders. Reduction in the incidence and severity of many side effects extends the benefits of therapy to numerous patients who could not tolerate other steroids. And a healthy sense of well-being, reported by nearly all patients on DECADRON, assures greater patient cooperation.

References:

1. Boland, E. W.: California Med. 88:417 (June) 1958. 2. Bunim, J. J., et al.: Arthr. & Rheum. 1:313 (Aug.) 1958 3. Boland, E. W., and Headley, N. E.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Calif. 4. Bunim, J. J., et al.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Calif.

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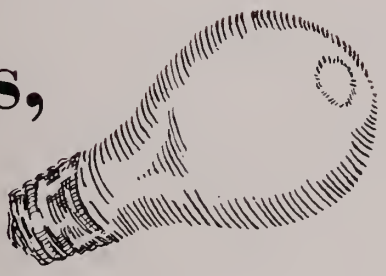
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NORTHWEST MEDICINE

VOLUME 57
NUMBER 12
DECEMBER, 1958

EDITORIAL

Our Presidents

In a world of swift and sometimes kaleidoscopic change there is urgent need for leadership. With it, change can lead to progress but without it, only to chaos. Leadership of medicine in society is necessary if we are to preserve social organization based on individual responsibility. Leadership within medicine places the burden of this extra-medical obligation squarely upon the shoulders of those selected by their fellows as most capable to bear it. Without exception, the men chosen this year to lead medicine in the four states of the Northwest have proven both their interest and their ability through years of service to organization. It remains for membership to appreciate the devotion of such leaders and to realize, with them, the seriousness of problems facing the profession in our changing world.



HERMAN A. DICKEL, M.D.
PRESIDENT, OREGON STATE MEDICAL SOCIETY

Herman A. Dickel is imbued with the spirit of the Northwest since he is a native of Washington and received most of his postgraduate training in Oregon and Washington. He is of the third generation of a pioneer family who came to the Palouse area shortly after the Civil War. Childhood and youth were spent in Montana and premedical education (a degree in chemistry from Montana University in 1933) was obtained in that state. Medical degree was granted by Northwestern in 1937.

Internship followed at St. Vincent's in Portland and training in psychiatry was begun the next year at the University of Oregon Medical School. Training continued at Hastings State Hospital at Ingleside, Nebraska; Johns Hopkins Hospital and clinics at Baltimore, and Puget Sound Sanitarium, Tacoma, Washington. Since October 1942 he

has been engaged in private practice of psychiatry and has served in teaching capacity at the University of Oregon Medical school. He is now associate clinical professor of psychiatry.

His advice and guidance have been sought by a number of agencies, both public and private. He was consultant to the Oregon State Board of Parole and Probation from 1942 to 1946, has been consultant to the Oregon Medical Advisory Board to the Selective Service System since 1943, member of the Advisory Committee to the State Board of Control for the Oregon State Training Schools, and was a founding member of the Board of Directors of the Portland Community Child Guidance Clinic.

He has served as a member of the Board of Trustees of the Oregon Arthritis and Rheumatism Foundation, the Oregon Mental Health Association, and has been on the Advisory Committee on Mental Health on the Oregon State Board of Health.

He is a Fellow of the American College of Physicians, the American Psychiatric Association and the North Pacific Society of Neurology and Psychiatry (of which he was president in 1948), the Association For Research of Nervous and Mental Diseases, the American Association for the Advancement of Science, the Western Electroencephalographic Society, and the Portland Academy of Medicine (for which he was vice-president in 1949).

He has been active in medical society affairs since 1949, having served as a delegate to the State Society, having served on the Mental Health Committee and the Public Health Committee for a number of years, and having been councilor for the Multnomah County Medical Society from 1952 to 1955. Dr. Dickel was president of Multnomah County Medical Society from 1956 to 1957 and was made president-elect of Oregon State Medical Society in 1957.

He has contributed a variety of articles to professional journals, and is co-author of a book on anxiety-tension states with G. D. Haugen and Henry H. Dixon.

In 1940 he married a nurse, Elnora E. Dillow, and they have one son, Charles Timothy. The Dickels reside in Portland, and have made the Northwest very much their home all their lives.



EMMETT L. CALHOUN, M.D.
PRESIDENT, WASHINGTON STATE MEDICAL ASSOCIATION

Emmett L. Calhoun, a Washington native, comes from pioneer stock. His paternal grandfather, Samuel G. Calhoun, was the fourth physician to establish a practice in Seattle where Emmett was born. Only war and the necessity to go elsewhere for medical education have taken him from the Northwest. Because of his innate modesty, few know the distinguished service he rendered in uniform in both World Wars. Two awards of the Purple Heart and a Silver Star indicate more than casual participation in battle. In one heavy engagement in the Pacific, while aboard a carrier, he operated on casualties for 27 hours without stopping. His rank, at retirement, was Rear Admiral. In World War I, at the age of 19, he served in France with the medical corps of the 161st Infantry Division.

Dr. Calhoun took his premedical training at the University of Washington, went to Chicago for four years at Northwestern and upon receiving his degree, returned promptly to Seattle for internship at Seattle City Hospital. In 1926 he

married Dorothy Ehrlich of Seattle who helped him in developing the practice he established in Grays Harbor that year. She was a charter member of the Board of Trustees of the Woman's Auxiliary to Washington State Medical Association, organizer and first president of the Grays Harbor Auxiliary and Southwestern Washington organizer for the Auxiliary to Seattle Orthopedic Hospital. They have two sons, John who is employed by Stauffer Chemical Company in Portland and Robert who is a junior in medicine at Johns Hopkins.

In practice he considers himself a general practitioner although much of his work is in surgery. He is a Fellow of the American College of Surgeons.

Dr. Calhoun comes to his new position from many years of experience and responsibility in the affairs of medical organization. He has served repeatedly on the Board of Trustees of the state association, has been a trustee of the Washington Physicians Service for six years, was president of the Grays Harbor Medical Service Bureau and has served the Grays Harbor County Medical Society in many capacities including two terms as its president.



DONALD K. WORDEN, M.D.
PRESIDENT, IDAHO STATE MEDICAL ASSOCIATION

Donald K. Worden has gained reputations as a lover of good fun and as a successful politician. He has been mayor of Lewiston since 1951. To those who know him well enough to penetrate his penchant for joking, he has a third attribute. He is profoundly concerned for the welfare of his fellow man, not only for those within the profession but for the man on the street as well. The disguise is well maintained but sometimes, as he addresses a meeting, it drops away to reveal the sincerity of conclusions reached only after much quiet reflection and study.

Dr. Worden was born in Wymore, Nebraska, took his premedical education at the University of Wyoming at Laramie, and was graduated from the University of Nebraska School of Medicine in 1925. He trained in the Murray Hospital at Butte and subsequently practiced in the Murray Clinic until he moved to Lewiston, Montana, in 1933. Four years later he moved to his present location, Lewiston, Idaho, where he specializes in EENT.

He is an enthusiastic supporter of prepayment and was one of the organizers of the North Idaho Medical Service Bureau. He was director of that organization for a number of years and has served as its president.

Interest in medical organization has taken him through many committee assignments in his local society and in the state association. He has been president of the North Idaho District Medical Society and was a delegate to the state association for many years. In the state organization he has been a member of the Cancer Committee, the Advisory Committee to the State Department of Public Assistance, the Prepaid Medical Care Committee and the Professional Relations Committee. For the past four years he had been Councilor for District One.

Dr. Worden is justifiably proud of four children, all of whom have inherited something of his stimulating personality and six grandchildren whom he entertains as frequently as his many obligations will permit. In the remaining brief interludes from more serious duty, he grows show-quality roses and enjoys a better than average game of golf.



WILLIAM M. WHITEHEAD, M.D.
PRESIDENT, ALASKA STATE MEDICAL ASSOCIATION

William M. Whitehead was born and educated in the state of Virginia. He graduated from the University of Virginia Medical School in 1931. He came West after graduation and interned at the Virginia Mason Hospital in Seattle, Wash. He spent one year as ship's surgeon for the American Mail Line, traveling to the Orient. In 1934, he moved to Wrangell, Alaska, where he was married to Dorothy Johnson of that city. In 1935, he moved to Juneau, Alaska, where he and his wife and five children have resided since, except for one and a half years spent in Virginia doing OB and GYN.

Dr. Whitehead has been very active in community and territorial affairs. He is a past president of the Rotary Club and the Chamber of Commerce. He has been secretary of the Board of Medical Examiners since 1943 and a member of the Territorial Board of Education since 1945. He was president of the Alaska Territorial Medical Association in 1944 and was again so honored at the Fairbanks meeting in May 1958.•

Typical Attack

A story published October 22, 1958 by a small weekly newspaper in Renton, Washington, may be of interest to those who remain unconcerned about attacks of the United Mine Workers on the medical profession. Editor of the weekly, who refused to state his circulation, stated that he thought the article came from a paper published by the United Mine Workers. The story represents, in a small way, the problem faced by physicians in Pennsylvania and Colorado where activities of the United Mine Workers Welfare Fund are much more intense than they are in the Northwest. The story follows:

Curb on Doctors Cuts High Costs

Back in October 1957 the United Mine Workers found it necessary to specify which doctors and hospitals may be used by beneficiaries of its huge medical care program, to curb fee gouging, needless hospitalization, excessive surgery and other "abuses" by doctors.

Ever since then the union has been locked in battle with the "Doctors Trust"— the American Medical Association — which has tried to "blacklist" doctors who comply with the unions' plan, and to get state laws passed that would outlaw plans which list "acceptable" doctors.

This week the union released figures showing how greatly its welfare fund, as well as miners and their families, have benefited from curbing the abuses. It reported that in the fiscal year 1957-58 hospital and medical care costs were reduced by $14 million in comparison with the previous year.

The union stressed this saving was made without any reduction in the plan's coverage and services and "notwithstanding a sharp increase in medical costs throughout the nation." Also, it noted the reduction was made in nine months, since the specification program was not in effect the first three months of the year.

Further, the UMW report showed a 9.2 per cent decrease in hospital admission rates over 1956-57 and a 9.3 per cent drop in days of hospital care. •

AAPS Opposes Corporate Practice

The Association of American Physicians and Surgeons is a voluntary organization dedicated to preservation of private practice of medicine and the free enterprise system. At its recent meeting it passed, among others, the following resolution:

RESOLUTION ON CORPORATE PRACTICE OF MEDICINE

WHEREAS, the corporate practice of medicine is generally condemned as unethical and illegal, and

WHEREAS, the disposal of the services of its faculty or staff by a medical college or hospital for a fee constitutes the corporate practice of medicine.

THEREFORE, BE IT RESOLVED that the House of Delegates of the Association of American Physicians and Surgeons, Inc., in regular session assembled in Chicago, Illinois this 11th day of October, 1958 condemns such corporate practice by colleges and hospitals.

GUEST EDITORIAL:

Bill of Rights

Public Relations Committee
Of The Washington State Bar Association

Patrick Henry, whose ringing words, "Give me Liberty, or give me death," stand for all time as a symbol of the American spirit of freedom, would be horrified to be alive today and learn the results of a recent poll conducted among teen-agers by a large university opinion panel.

He would hear, for example, that the following startling beliefs were held: 26 per cent of the teen-agers would permit search and seizure without a warrant; 34 per cent believe free speech should be denied to certain people; over 50 per cent of those polled feel most people are not capable of deciding what is best for themselves; and 41 per cent do not believe in complete freedom of the press.

All of us need to remind ourselves constantly of the rights which free men cherish as "unalienable," and which our Founding Fathers hammered into our basic law.

Another Founding Father, James Madison, who knew that the passage of time can dull our vigilance in protecting our own rights said:

"People are very frequently amazed to discover that the Bill of Rights is not a grant of privileges handed down to them by the government, but rather it is a curb and a restriction laid upon the government by the people. The Bill of Rights, we must remember always, is but an instrument. It must be wielded, cared for by each succeeding generation."

The truth of Madison's words is startlingly demonstrated by the following direct quotation from the Constitution of Soviet Russia:

"The citizens . . . are guaranteed by law, freedom of speech; freedom of the press; freedom of assemblies and meetings; freedom of street processions and demonstrations."

These fine statements are almost interchangeable with our own first amendment, yet everyone knows how meaningless the words really are in Russia today.

By contrast, our own Bill of Rights reaffirmed existing freedoms, and continues to be jealously guarded as a living thing—affecting each American, protecting his rights from encroachment by government or individuals, but also preventing him from violating the rights of others.

The Bill of Rights is not just a piece of paper on which is written a number of high sounding phrases. It is a vital document as important to every citizen today as it was on the day it was adopted.•

The Bar Association states that this material is written to inform, not advise. Facts may change the application of the law.



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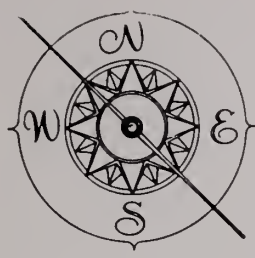
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ORIGINAL ARTICLES

Care of the Urinary Bladder After Operation

C. D. Creevy, M.D.
MINNEAPOLIS, MINNESOTA

A major element in postoperative management is care of the urinary bladder. Damage and prolonged convalescence can result from neglect but may be prevented by application of a few simple principles.

There is no organ in the body which so often plays the unhappy role of the innocent bystander who was accidentally injured as does the urinary bladder in the course of operations upon other, unrelated organs. I refer, not to direct surgical trauma at the time of operation, but to the effects of neglected or mistreated postoperative retention of urine. This complication is especially frequent after operations which confine the patient to bed. It is often described as "reflex," but it is actually due to a combination of three factors.

Factors

First, many patients are unable to urinate in the horizontal position even when in good health. Second, is the role of pain in patients with incisions in the abdominal wall or perineum. In such cases, contraction of the voluntary muscles of urination is painful and hence more or less subconsciously avoided. Third, is the effect of drugs. This may take the form of temporary residual paralysis after spinal anesthesia but usually it is due to the administration of opiates which may tighten the internal sphincter or make the patient unaware of fullness of the bladder until it is overstretched. Antispasmodics may lessen the contractility of the detrusor muscle, especially if opiates are given at the same time. The anticholinergic drugs used for peptic ulcer, some of the antihistamines, and a few of the antihypertensive agents (ganglion blocking) can precipitate urinary retention.

The situation is much aggravated by removal of the rectum or uterus. The vesical plexus may be injured either directly or by a postoperative inflammatory reaction. Loss of anatomic support may play a part, as may postoperative swelling around the internal meatus.

Damage Done by Retention

Some surgeons are loath to have their patients catheterized until prolonged, painful distention of the bladder has rendered the situation intolerable. They maintain that avoidance of catheterization is avoidance of infection and remain blissfully unaware of the havoc that prolonged painful distention of the bladder ordinarily produces, especially when supplemented by the patient's futile efforts to void. As Cabot long ago pointed out, prolonged distention of the bladder injures it and makes it a ready victim of infection.

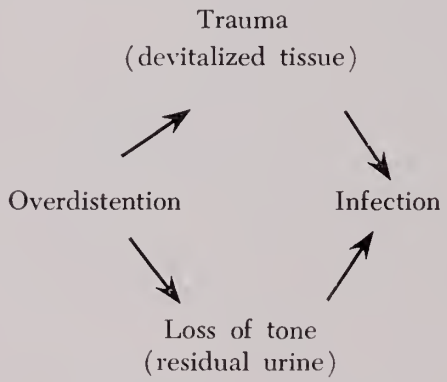
Experimentally, such distention causes mucosal and submucosal hemorrhages and thus produces

Presented at meeting of Idaho State Medical Association at Sun Valley, Idaho, July 8, 1958.

devitalized tissue which is an ideal culture medium for bacteria. Unfortunately, to this situation is added loss of tone by the detrusor as the direct result of the same injury. This has long been evident from the experience of patients with hitherto symptomless obstruction at the vesical neck who, either because of indulgence in alcohol or because of a long ride in an automobile, hold their urine too long, are then unable to let it go, and develop persistent retention.

This crude clinical observation has been proved experimentally by Kirwin and Hawes. They had six ambulatory young men entirely free from lesions of the urinary tract hold their urine as long as possible. After they had finally voided, they were catheterized. All had residual urine which ranged from 70 to 365 cc., with an average of 170 cc. Remembering that these were robust, ambulatory men, it is easy to understand the frequency of urinary retention in sick, postoperative patients who must void lying down despite painful incisions and the inhibitory effects of drugs.

The situation may be depicted thus:



Prevention by Adequate Care

This unfortunate situation is readily prevented (but much less readily cured once it has appeared) by proper attention to the bladder following operation. Account must be taken of the fluid intake. A patient who receives 3,000 cc. of fluid per day will ordinarily put out at least one-half that amount of urine. Since the average bladder will be painfully distended by 500 to 600 cc. of urine, it must be emptied at least three, and often four, times daily to avoid overstretching.

Also, fluids given intravenously may accumulate very rapidly in the bladder, at the rate of 500 cc. an hour, or even more. Yet many a surgeon will order a liter or more of fluid intravenously immediately after operation, caution the house staff and nurses against catheterization unless absolutely unavoidable, and write an order to "catheterize every eight hours if necessary." An hour later the bladder is full; but, if the order is taken literally, seven hours will elapse before relief comes unless someone intervenes. Infection follows catheterization; the catheter and the intern or nurse who wielded it get the blame, which obviously attaches to the surgeon who, in the words of Cabot, "prepared the soil." Next time, he is even more determined to avoid catheterization.

Do not forget that an occasional patient with postoperative retention will dribble painlessly from a full bladder instead of complaining of painful distention.

Everyone is familiar with the dodges used to evoke urination, such as pouring warm water over the genitals or hand, applying a hot-water bag to the suprapubic area and running water within the patient's hearing. These are not objectionable in themselves, and not infrequently are followed by micturition. They should be used only until distention becomes mildly uncomfortable without being painful, when a catheter should at once be employed. The gentle, aseptic passage of a small, well lubricated Thieman catheter does no harm unless the bladder has been previously damaged. If catheterization has to be repeated more than once or twice, a Foley-Alcock catheter should be left in and connected through one arm of a sterile glass Y-tube and rubber tubing to a sterile reservoir hung at the bedside and containing sterile fluid (either water or a mild antiseptic); the other arm goes to a sterile empty bottle beneath the bed. Thus the bladder is kept empty, avoiding both trauma and stagnation of urine, and it can be irrigated by releasing a clamp. This obviates the contamination which is inevitably introduced from without when unsterile equipment is used or when the catheter is irrigated by hand by any but the most skilled assistants. The value of prophylactic antibiotics while a catheter is being used is open to debate.

Management of Prophylactic Indwelling Catheter

Because of the frequency of postoperative urinary retention, it seems to me wise to insert a Foley catheter at the start of any extensive operation, and to leave it until the patient has rallied.

Many surgeons will follow such regimens only to undo their good effects by premature removal of the catheter, or by forgetting the bladder as soon as the catheter is out. It should be left in place until the patient is gaining strength and is

able to move about freely. After the catheter has been removed, the patient is observed closely. As long as he voids good volumes at normal intervals, nothing need be done. If he voids frequently with straining or dysuria (or if he has complete retention), a Foley catheter is used to measure the residual urine, and is left in place if it exceeds 75 to 100 cc.

If there was no history of urinary difficulty prior to operation, the patient who requires recatheterization may improve with cholinergic drugs (pilocarpine, urecholine).

If residual urine or retention resists these measures, cystoscopic examination to discover obstructive lesions or neurogenic vesical dysfunction is indicated. *If neither is found* and the patient's general state is good, one may try a nasty German trick: 1 cc. of 1 per cent pilocarpine (10 mg.) intravenously after the bladder is full. If the patient voids, he will make every effort to urinate thereafter in order to avoid another such treatment.

The regimen outlined above is a simple one, but its meticulous application will save both patient and surgeon a very great deal of worry and discomfort and will shorten many a convalescence. Failure to follow it may result not only in urinary infection, but in persistent retention of urine which may necessitate piling a second, unplanned operation on top of the first one.

Care After Cord Injury

Much more could be said about the management of neurogenic vesical dysfunction (or cord bladder if you prefer). Suffice it to say here that, in those dysfunctions due to injury of the spinal cord, an attempt should be made first to empty the bladder by the Credé maneuver sufficiently often to prevent overdistention. If this fails or is impractical, an inlying catheter with an irrigator, such as that of Munro and Hahn, permitting tidal irrigation, should be used, since this is a very satisfactory means of minimizing or preventing damage to the urinary tract. If, after improvement of the spinal cord is complete, it becomes evident that the innervation of the bladder is permanently destroyed, cystostomy should be done, since it is much easier to maintain than an inlying catheter and is free from the risk of periurethritis, prostatitis, and epididymitis. Should recovery of the cord then occur unexpectedly, the bladder has been preserved intact and will resume its function if the tube is removed. •

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Reformer's Folly

According to a Middle Ages legend there were gangs of students who went in search of teachers—good teachers being exceedingly scarce—and upon finding one worthy of that title they would "shanghai" the learned one and keep him captive in order to gain understanding. These medieval seminars or study groups were of sound design, with eyes cast in the right direction, as right today as then. Merely substitute a gentle invitation for the rough and tumble of shanghaiing, and there's the pattern and our answer to these inquiries.

Reverse the above procedure. Imagine a gang of self-designated "teachers" shanghaiing "students" in order that the "ignorant ones" might be blessed with their wisdom. The folly of this is obvious. But such is the "practical" way now in vogue. This is the way of the reformer.

From Notes from FEE, November 1958.

Treatment of Fractures of the Patella

Don H. O'Donoghue, M.D.
Oklahoma City, Oklahoma

Dissatisfaction with results of conservative treatment led to operation in most cases of patellar fracture. The patella may be only a phylogenetic remnant and unnecessary. Experience indicates that no patella is better than a poor one.

There is much of interest in history of treatment of fractured patella. Gross, in 1830, in his textbook Anatomy, Physiology and Diseases of the Bones and Joints,[1] has an interesting section on patellar fractures. He predicates fibrous union only, the result depending upon how well the pieces can be held in approximation. Various ingenious devices were used, such as the Schmalz's knee box, Sir Astley Cooper's leather straps and various other bandages and devices designed to hold the upper fragment down and the lower fragment up, without the necessity for or the danger of opening the skin. By 1842, Liston, in his book The Elements of Surgery,[2] gives the same prognosis but deplores the use of "straps, buckles, and apertures to receive the portions of the bone" as "worse than useless." He says that breaking of the skin over the joint is a catastrophe frequently resulting in amputation.

Non-Operative Era

This general conception continued throughout the nineteenth century with only an occasional pioneer having the temerity to attempt to replace the fragments by surgery. Indeed, this was done early only under the pressure of an already open wound and then infection frequently supervened with disaster the result. This discouraged the surgeon from open surgery. In fact as recently as 1922, one of my classmates, overcome by the ennui of a surgical clinic (dry!) fell into the pit from the surrounding gallery and broke his patella. He was promptly utilized for demonstration. He had a transverse fracture of the middle third of the patella with separation of the fragments and was treated by cross-diamond adhesive strapping, holding the upper fragment down and the lower fragment up. The fact that he developed non-union and went on to bone grafting does not alter the fact that closed strapping was considered preferable to open replacement, even in an enlightened medical school as late as the 1920's.



Fig. 1. Baseball player treated many years ago by excision of this lateral fragment after many months of disability from unrecognized fracture. Silhouette view would have revealed this fragment.

The long series of unsatisfactory results had their effect and, encouraged by the general up-

Read before the 66th Annual Meeting of the Idaho State Medical Association, Sun Valley, Idaho, July 9, 1958.

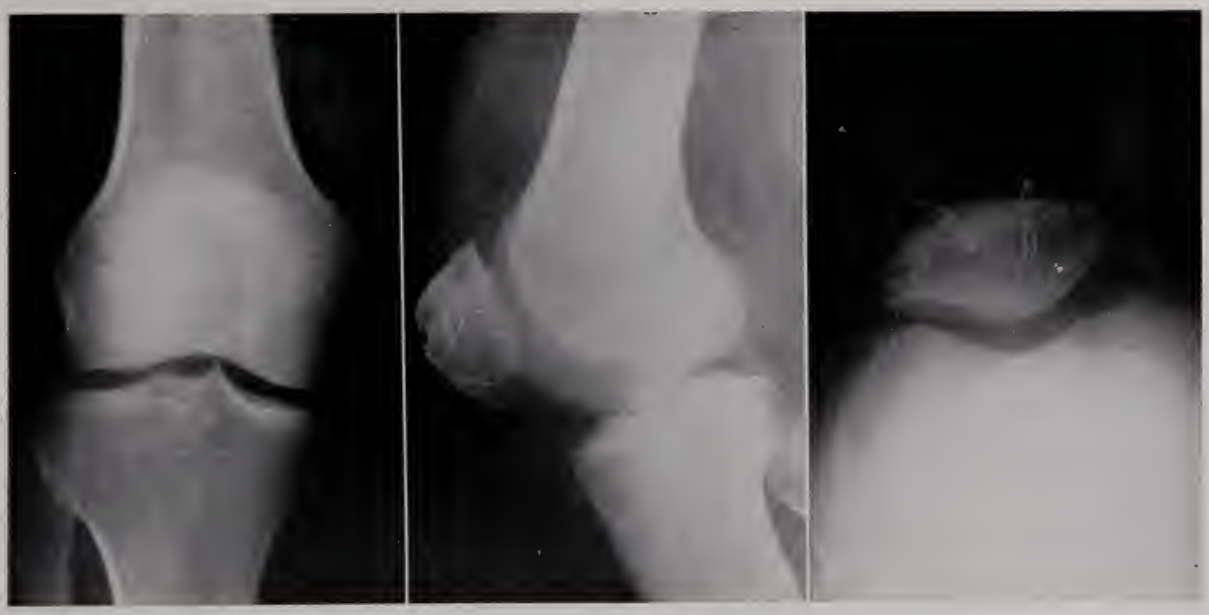


Fig. 2. Comminuted fracture of the patella treated many years ago by reposition of fragments and suture. There was continually increasing disability. Patellectomy would have given better result.

surge of surgical techniques in other areas, the patellar fracture came to be considered one which demanded open reduction. Wilson and Cochran, in their book, Fractures and Dislocations,[3] urged (1) closed reduction of the fracture if not greatly displaced or comminuted; (2) open reduction for the badly displaced or comminuted fracture with "careful replacement and fixation of all the fragments of the patella."

Campbell in his Orthopedic Surgery,[4] states that fracture of the patella is always surgical, if complete. Careful reposition and suture of all fragments is recommended. Phillip D. Wilson in

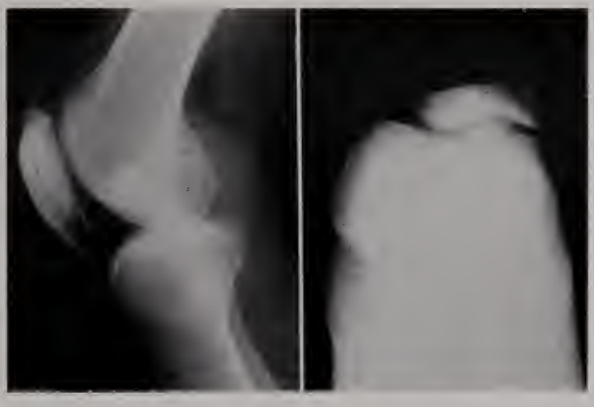


Fig. 3. Lateral and silhouette views of the patella following automobile accident two years ago. Comminuted fracture was treated without surgery and was in cast eight weeks. Present findings are: gross audible and palpable subpatellar crepitation, marked pain, restriction of motion, and increasing disability. Patellectomy at the time of injury would have given much better result than late operation will.

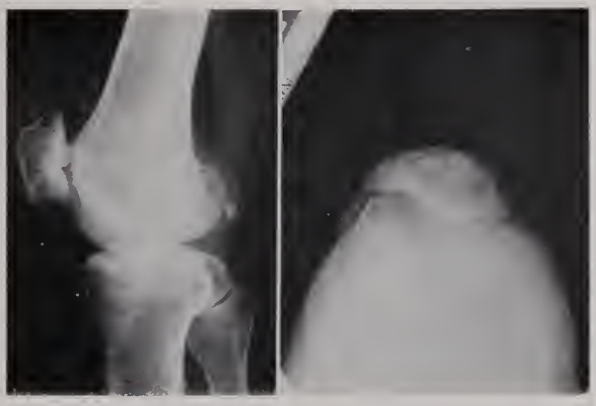


Fig. 4. Transverse fracture of the patella 18 months after careful suture. Note gross irregularity of the under surface due to absorption because of chondro-marginal fragmentation along the fracture line. This probably was quite smooth originally. Present treatment should be patellectomy. Better late than never!

Management of Fractures and Dislocations,[5] presents a compend of the work done at the Massachusetts General Hospital, and recommends open reduction for all fractures of the patella, if the fragments are displaced. Careful attention is given to suture of the fragments. Many methods are detailed, the suture preferred being fascia lata, in some cases kangaroo tendon, and in other cases, wire. Emphasis is placed on the necessity for a very accurate replacement of all fragments.

Fragment Removal

In 1937, Key and Conwell in the Management

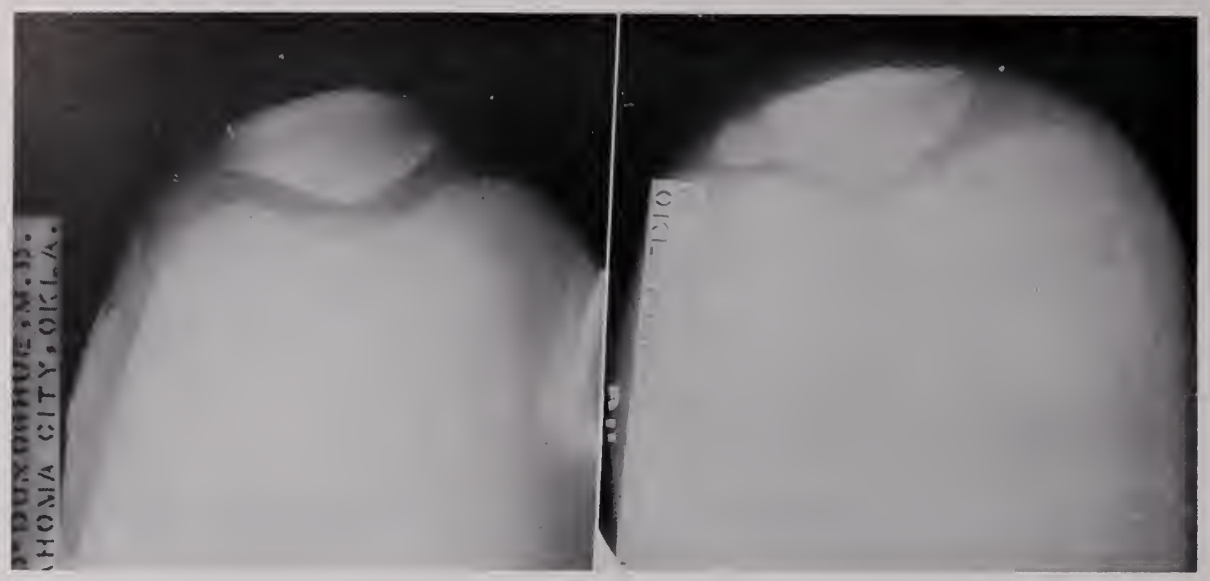


Fig. 5. Lateral marginal fracture of the patella treated by excision of the fragment and repair of the tendon to the patella. Normal function resulted. Note opposite knee for comparison. This is an excellent example of the silhouette view.

of Fractures, Dislocations and Sprains, second edition,[6] recommend open reduction of all displaced fractures of the patella with careful suture. Here, however, is mentioned, for the first time, removal of the small fragments and suture of the patellar tendon to the remaining patella. Only a couple of lines is given to this method of treatment.

Campbell in Operative Orthopedics[7] urges operative treatment of all complete fractures. The book describes in great detail the several methods of suturing and, first, urges very accurate repositioning of all the fragments. Second, it discusses at some length the removal of the smaller fragments with retention of a single, large piece, and suture of the tendon to the remaining piece. Third, for the first time noted in a standard text, patellectomy is mentioned. A rather cautious discussion is given restricting its use to the very badly comminuted fracture, which obviously could not be treated by any other method. However, by 1949, Campbell in the revised edition of Operative Orthopedics advises: (1) suture of the fragments if it is a simple transverse fracture, (2) removal of the small fragments and retention of the larger fragment if there is a single large fragment and, (3) patellectomy for comminuted fractures with displacement. By 1956, in the third edition of the same work, he sounds a word of caution about indiscriminate patellectomy. He does add one more indication for patellectomy—namely, the comminuted fracture of the upper one-third of the bone. He states that the only indication for suture of bone to bone is in the simple, uncomplicated, non-comminuted fracture of the patella.

Key and Conwell in Fractures, Dislocations, and Sprains recommend the following: operative treatment in those fractures in which there is definite separation of the fragments and "in all doubtful cases. * * * With two large fragments, the operation of choice is to wire them together. * * * With one large and one or more smaller fragments, it is advisable to remove the smaller fragments and suture the ligament directly to the large fragment. * * * If the patella is extensively comminuted, it is advisable to excise the entire patella (seldom is this indicated)."

Cave in Fractures and Other Injuries[10] states that: (1) transverse fractures of the middle one-third should be repaired by meticulous suture and he cautions against any possible irregularity at the suture line, (2) polar fracture with small fragments at either the upper or lower extremity of the patella should be treated by removal of the pieces and repair of the tendon to the bone and (3) patellectomy should be done in all comminuted fractures and in all other fractures where the above conditions cannot be fulfilled.

Surgery Accepted

Therefore, we see, in the past 100 years, complete revolution from the conviction that all fractures of the patella resulted in non-union and

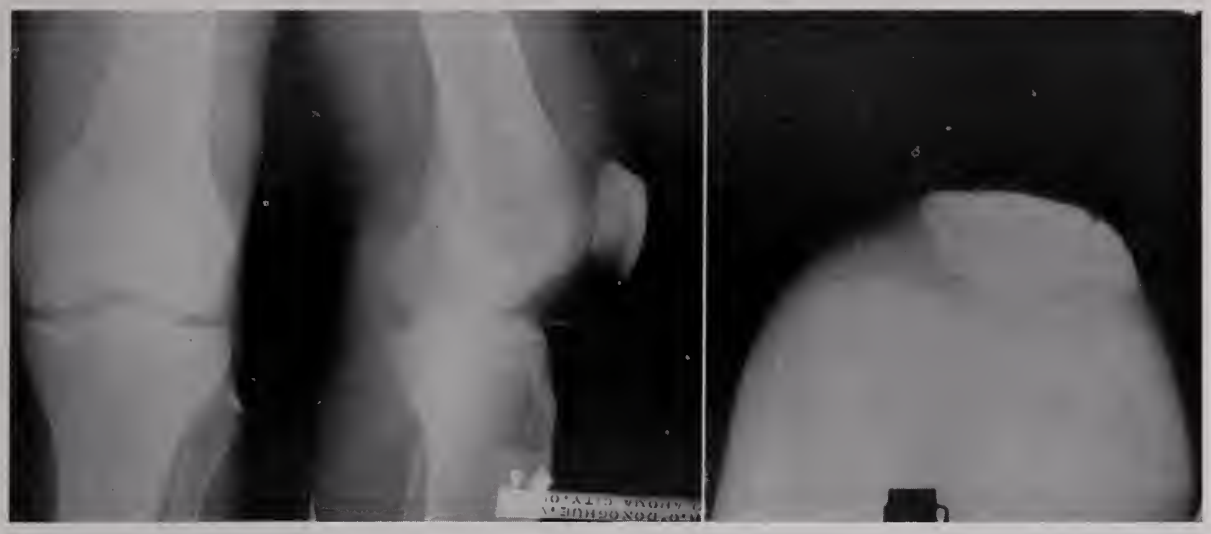


Fig. 6. This case illustrates the importanee of silhouette view. Even very eareful study of the A.P. and lateral pietures failed to reveal this fracture. The patient had months of disability before the eondition was recognized. This is not a bi-partite patella. Removal of this fragment promptly relieved the symptoms.

severe disability to the concept that excellent function is possible and can be attained by proper measures. Indeed within the last 25 years, since surgical treatment has become entirely accepted in the treatment of fractures of the patella, there has been a reversal of thought from the original idea of carefully replacing each fragment, with careful resuture of the jig-saw puzzle, to the conception that if one large fragment could not be left, the patella should be removed. The single exception is the transverse fracture of the middle third.

So much for the textbooks which, of necessity, must be conservative, and report generally accepted measures. What of the current literature? As indicated above, patellectomy in isolated cases has long been done. In 1860, and later in 1890, Althman reported cases, and by 1910 Heineck[11] reported a series of 10 cases in which patellectomy had been done for fractures of the patella where some other method seemed to be unsuitable. In spite of isolated reports of favorable results, patellectomy was not a generally accepted procedure.

Throughout the period of 1920 to 1940, surgical repair had a steadily increasing popularity and soon became the treatment of choice. There was a multiplicity of reports on various methods of repair, each stressing the importance of carefully preserving each fgragment, and suturing it meticulously into place, as one would fit a jig-saw puzzle. The main preoccupation of this period was with the method, not with principle. Catgut, fascia lata, kangaroo tendon, silk, wire, or braided wire—all had their proponents. The master carpenter, Fred Albee, even advocated an I block graft for certain transverse fractures of the middle third.

Many surgeons had encountered the obvious



Fig. 7. X-ray made five months after fracture of the patella that was treated by wire suture. This patient fell two months after suture and re-fraetured the patella. It was again sutured by wire. He had been dismissed as healed one week before this picture was made. There was no intervening aecident or ineident. Three months post-patellectomy he was back at regular work with 45 degree flexion. Three years post-patelleetomy he had normal motion and no pain.



Fig. 8. Upper view shows apparently clean transverse fracture of the patella which was sutured as indicated by the pencil marks. Lower view was taken after union. Note marked irregularity at the fracture site. This was possibly poor technique, yet was done by a competent surgeon. Primary patellectomy gives better final result than salvage patellectomy.

impossibility of suturing all the fragments, and had more or less surreptitiously discarded pieces that would not fit. If the patella was completely fragmented, there seemed no recourse but to remove it all. If one or more large pieces were available they were preserved and the tendon carefully sutured to the remaining fragments.

Choice Rather Than Necessity

In 1935, J. E. M. Thomson[12,13] presented cases showing the distinct advantage of removing the smaller fragments of polar fractures and suturing the tendon to the intact larger piece. Here was a real advance. Here was advocated removal of fragments, not because one had to, but as a method of choice.

The method became increasingly popular and was enthusiastically adopted because of better functional results. However, many strange things were done in the name of preserving a single intact fragment. The principle is eminently sound and this remains the best method for certain cases.

However, in too many instances, the cases were fitted to the method rather than the method to the cases. The basic principle is that tendon to bone healing is easier, better, quicker, and less complicated than bone to bone. However, the precept originally proposed by Thomson, that an intact patella should remain, was often overlooked. Unless the remaining fragment can assume the role of an essentially normal patella, the method will fail.

What about patellectomy? Unless the remaining fragment, or fragments, can function better than no patella, it is foolish to preserve the fragment.

As has been said, patellectomy had been done by necessity for many years. Despite relatively good results in very severe cases, the method was presented apologetically. In 1937, however, Brooke[14,15] presented a revolutionary report in which he concluded that the patella was a phylogenetic remnant, and that quadriceps function was better without a patella. He urged patellectomy in all fractures, and supported his thesis well. He presented patellectomy as the treatment of choice rather than of necessity.

Arguments Pro and Con

So the issue was joined, to preserve or to sacrifice the patella. Bruce and Walmsley,[16] working with rabbits, reported a refutation of Brooke's conclusions and concluded that the patella has a vital function and that it should not be sacrificed. In the next 10 years voluminous reports, pro and con, flooded the literature.[17-22] By 1948, however, patellectomy had attained a place as an elective measure alongside closed treatment, open repair, and removal of fragments. In 1949, I reported my conclusions, recommending:[21]

(1) Non-surgical treatment for fractures without displacement.

(2) Removal of small polar fragments and suture of the tendon to the remaining fragment, providing two-thirds of the patella

(3) Removal of small marginal fragments, provided the remaining patella was intact.

(4) Patellectomy in all other fractures.

It will be noted that in no case was bone to bone union required under this concept.

The complete metamorphosis from non-surgery to predominant open operation did not happen over night. Many factors were operative in effecting this change:

(1) General dissatisfaction with results obtained by non-surgical methods.



Fig. 9. Comminuted fracture of the patella accompanied by table fracture of the upper tibia. This case illustrates the distinct advantage of patellectomy in the case of multiple injury, since by patellectomy, motion can be actively started much sooner with less danger of over-calcification. This is type of case which in the past was very meticulously re-sutured, often with disastrous results from the standpoint of function.

(2) Improvement of surgical techniques.
(3) Improvement in anesthesia.
(4) Better x-ray visualization.
(5) Antibiotics, minimizing danger of infection.
(6) Better operating room facilities.

Gradually these factors overcame the inhibitions caused by the danger of infection, danger from anesthesia, and general poor patient risk.

What was largely behind the progress from bone reposition to bone removal? The work of Brooke[14] and many others revealed the true nature of the patella, and while not all agreed that the patella was expendable (Haxton[18]), certainly all thinking surgeons came to see that there was a point at which no patella was better than a poor one. Tompkins, Fulton, Hayes and I,[20] in 1950, carefully reviewed many cases with an abnormal patella from fracture and other causes as compared to a normal patella, and also as compared to results after patellectomy. We concluded, among other things:

"In fractures of the patella, removal of the fragments and repair of the tendon to the remaining large fragment is definitely better than patellectomy from the standpoint of strength. Cases



Fig. 10. Patient with giant cell tumor of lower femur extending into the knee joint. He had marked restriction of motion of the knee. He fell pulling his patella in two. Following patellectomy, motion markedly improved over what he had before his fracture. Ten years following removal of the giant cell tumor there is no recurrence. Range of motion is 180 to 90 degrees.



Fig. 11. Result five months following comminuted fracture of the patella treated by wire suture. In spite of good appearance of the joint space in the silhouette view, the rounded shape of the under surface shown in the lateral view gives relatively small bearing surface. Patient had restriction of flexion, subpatellar crepitation, and pain on squatting or stepping up.

should be carefully selected, however, or treatment will fail for other reasons. * * * Patellectomy yields excellent results in patients in whom other treatment—namely, wiring, repair of retained fragments, partial excision—has been used inadvisedly and failed. It definitely improves strength as well as motion. * * * Patellectomy gives very satisfactory strength in a very complicated case in which other treatment would be unsatisfactory. No reluctance need be felt in its use from the standpoint of weakness of the quadriceps following removal of the patella. * * * following patellectomy, there is a distinct loss of strength in quadriceps function, especially in complete extension."

So the indications for patellectomy have steadily expanded as experience has increased. More and more surgeons have come to realize that the difference is so small between a normal patella and no patella that one cannot afford to compromise for much less than a potentially normal bone.

Bone repair by suture of fragments becomes decreasingly attractive when it is considered that morbidity is greater, risk of impairment of motion is more, and that union may fail. All these hazards are hardly justified when the final results may well be less functional than that after primary patellectomy.



Fig. 12. Comminuted fracture of the patella in which heroic efforts were made to preserve a small fragment. This is, of course, ridiculous since this small bony bearing was inevitably inefficient and painful. Patellectomy in this 60 year old woman completely relieved her symptoms. On examination five years after patellectomy, her knee was symptom free. There was no swelling or tenderness and she had normal range of motion. Patellectomy should have been done at the time of injury.

The case reports attached show a few of the cases where patellectomy was necessary as a salvage procedure. These cases are self-explana-



Fig. 13. Comminuted fracture of the lower one-half of the patella treated by careful reposition of the fragments (1939). This patient was not seen until a few days after the injury because of multiple other injuries, and operation was postponed two weeks to permit abrasions to heal. The terrific calcification is a considerable handicap to this heavy patient. Primary procedure should have been suture to the upper fragment if feasible or patellectomy.

tory and illustrate full well that, at least in these cases, primary patellectomy should have been done as the treatment of choice rather than utilized many months, or years later, following a long period of disability.

Points in Technique

The technique of patellectomy is well described in any standard text of the treatment of fractures. Various divergencies in technique are of little importance. The cardinal factors are to obtain an entirely smooth surface to glide over the patellar groove and a firm, even suture that approximates the ends of the quadriceps and patellar tendons. In my early experience, many of the cases lacked a few degrees of complete extension, and were weak on complete extension. I make every effort to suture the tendons very snugly and very securely. I believe it is much more important to be able to extend the knee strongly and completely than it is to flex it completely. I will cheerfully sacrifice some degree of flexion in order to obtain this.

Another point which I think is of great importance is in regard to the femoral condyles. The anterosuperomedial, and particularly the anterosuperolateral, margins between the femoral shaft and the articular surface are frequently quite sharp and after the patella is removed, present a definite prominence. In many cases the remaining tendon will snap over this condylar eminence, particularly laterally. Therefore, I think it is advisable to smooth this off with a rongeur and rasp presenting as smooth a surface as possible at the margins of the cartilage so that the repaired tendon may slide over it freely.

The suture should be firm enough to permit the knee to be test flexed to approximately a right angle before the skin wound is closed. With this type of strong repair, quadriceps setting and active straight leg raising can be started at once. Initial long leg stirrup splints can be replaced in



Fig. 14. Compound comminuted patella. This is the type of case where patellectomy is mandatory. She had a very good result following patellectomy in spite of multiple other fractures. On examination five years after her injury, she had virtually no complaint of the knee but had considerable weakness in complete extension.

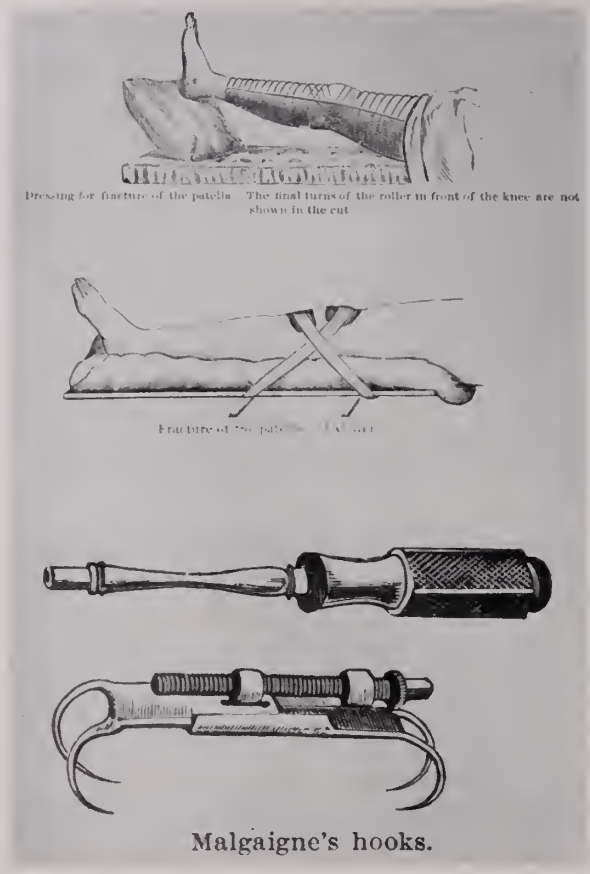


Fig. 15. Cuts from old textbook showing at top the spiral wrapping to approximate fragments which had great popularity. Middle illustration shows similar procedure with different technique. Neither of these techniques did more than to keep the fragments from retracting widely and could result only in a fibrous union if union occurred at all. The bottom cut shows one of the types of hooks that was used to pull the fragments together and get firm approximation. This represents one of the more heroic efforts to avoid open operation. The implications of the hooks are quite obvious since one or more of them undoubtedly entered the knee and the very infection which was feared so much would certainly supervene.

two weeks by cotton cast and weight bearing may be started. All dressings can be removed in four weeks, and very active rehabilitation continued. Even the very elderly will respond well to this program with amazingly complete return of function.

Conclusion

In conclusion, let me list again my convictions as to the treatment of fracture of the patella.

Patellectomy is the treatment of choice in all fractures of the patella with the following definitely circumscribed exceptions:

1. Fractures without displacement and without obvious chondral damage should be treated by aspiration, injection of hyaluronidase, compression splinting until swelling subsides and then a long leg cast for four weeks or more.

2. Fracture of the patella with polar fragments, either upper or lower end, should be treated by meticulous removal of all fragments, and repair of the tendon to the remaining single fragment. After repair, function should be tested on the operating room table to observe that the patella does not rock forward in flexion. Unless the sliding motion is smooth and without tilt, the fragment should be removed and the patillectomy completed. Do not leave an obviously abnormal fragment with severe chondral damage.

3. Lateral marginal fragments may be removed with the same restrictions as above.

4. With these exceptions only, patellectomy should always be done and done early, within a few hours if possible. A few hours delay may grow into several days or even weeks of disability due to abrasion, infection, circulatory blebs and contaminated cuts. There is no margin for compromise with infection. This principle applies even more specifically if bone is to remain.

In my opinion, there is no justification for any attempt to obtain repair of bone to bone in the treatment of fractures of the patella. •

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Diet and Coronary Heart Disease

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Suspicion rather than proven fact seems to indicate tentative acceptance of the idea that high fat diets may accelerate atherosclerosis. Administration of unsaturated fats may or may not have value but they probably do no harm. There is some justification for recommending use of cooking oils high in unsaturated fatty acids and in suggesting dietary fat restriction for patients with hypercholesteremia or coronary diease.

This brief title implies a closer association than can be fully substantiated. We are not really sure whether certain dietary trends in man can actually lead to atherosclerosis, and even less do we know that changes in diet may lead to regression of established coronary atherosclerosis or prevention of this disorder.

However, since the relatively recent appearance of a voluminous literature bearing on this subject it is well to sift this to decide what our position is at this time.

First it is important to limit this discussion to one form of arteriosclerosis (there are several types)—namely, atherosclerosis characterized by plaque formation. The field should be narrowed further to the occurrence of this disease in the coronary arteries as characterized by the clinical syndromes of angina pectoris, coronary thrombosis with infarction, accompanying replacement fibrosis or scar formation and occasionally congestive heart failure, although the last named does not bear on the argument.

Even with this seemingly narrow subject under discussion it will still be difficult to reach a conclusion on the effect of diet on the causation or amelioration of coronary atherosclerosis.

Of the several theories relating to mechanisms leading to atherosclerosis, this discussion will deal primarily with the metabolic theory emphasizing the role of the blood lipids as a factor in atherosclerotic production. Discussion of the physical, degenerative and thrombotic theories will be purposely omitted and influences of genetic factors, as well as hormonal factors, must be left out at this time.

It is important to recall that the other theories mentioned above deal with events that lead to the deposition or accumulation of the lipid filled and fibrotic plaque. If we can establish that the ultimate lesion (whatever the theoretic pathogenesis) can be modified or prevented by any reasonable clinical approach, dietary or otherwise, then an examination of this subject is highly in order.

Background for Relationship of Serum Cholesterol and Atherosclerosis

A number of observations over the years have awakened a new interest in the subject of lipid metabolism and its relation to atherosclerosis. Some of these are old and some quite recent. Perhaps one of the major factors presently stimulating interest is the epidemiologic study of coronary heart disease and diet in various countries and ethnic groups. Perhaps in addition it would be wise at this point to put down some recent findings leading to this renewed interest.

1) Animal feeding experiments show that addition of cholesterol and neutral fats leads to higher than normal serum cholesterol for the

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species in question and frequently enough to atherosclerosis, even to a type of myocardial infarction in recent rat experiments.

2) Under certain conditions, atherosclerotic changes may be prevented in animals or actual regression of established lesions brought about by estrogen administration.

3) The association of the increased incidence of human atherosclerosis and coronary artery disease with diabetes, myxedema, xanthomatosis, hyperlipemia, and hypercholesteremia, is generally accepted.

4) Women under menopausal age have less coronary heart disease than men and a few studies indicate that estrogen administration to males lowers the serum cholesterol. Also, coronary heart disease increases in females after the menopause.

5) Epidemiologic studies appear to indicate that the high neutral fat diets of some countries are associated with higher incidence of coronary heart disease, whereas the incidence of coronary disease is lower in the countries using less fat.

This has been further broken down to the *implication* that the fortunate low coronary disease peoples use a greater proportion of unsaturated fatty acids. Violent contrary opinion has been voiced as to the accuracy of the epidemiologic approach.

6) Sitosterols and phytosterols administered to both man and animals lower serum cholesterol.

7) The administration of unsaturated fatty acids to man lowers serum cholesterol.

A quick perusal of these indicates at once that almost invariably discussion hangs on the level of the lipids in the blood—whether it be in animal experimentation or clinical study. Elevated blood lipid levels are supposed to accompany experimental production of atherosclerosis in animals and serum lipid reduction conversely is supposed to be a good thing in man. Appraisal of therapeutic maneuvers for the amelioration of atherosclerosis up to this point must be largely indirect and inferential in man.

However, recently Wood has introduced an objective approach to the general subject of arteriosclerosis with the reporting of an arterial pressure volume curve in the extremity of man in vivo. Measurements on the lower extremity of 29 subjects without clinical evidence of arteriosclerosis showed values so different from 19 patients with objective advanced evidence of arteriosclerosis that he felt the method to be a valid means of following objectively the course of peripheral arteriosclerosis. The results were reproducible on repeated tests in the same subject. If these observations can be extended in man in long term observation there is considerable hope that we need no longer infer but will be able to measure. At the moment, however, no direct observations are available on human coronary atherosclerosis and the effects of dietary fat unless the coronary flow measurements of Gorlin can be turned to this purpose.

It would be acceptable no doubt in this west side of the country to argue the point concerning the relative value of cholesterol and other lipid fractions in their relationship to coronary atherosclerosis in man. This challenge we must forego for two excellent reasons: 1) lack of personal experience and 2) lack of time. Fortunately, most observers agree that serum cholesterol is as good an index in a statistical study of the incidence of myocardial infarction as the low density lipoproteins. It is becoming evident from several studies that beta lipoprotein cholesterol shows the greater changes with differences in dietary fat particularly in the older age groups. Gofman, however, does not agree with this and finds a higher correlation of certain low density lipoproteins with myocardial infarction and a less close one with overall serum cholesterol content. This falls into a research argument not immediately germane to the present discussion. Lately, at the spring research meetings at Atlantic City, it was reported that the serum triglycerides showed a higher correlation with myocardial infarction incidence than did cholesterol.

General agreement exists on one very important point—neither analysis of serum cholesterol nor the low density lipoproteins have any specific value in prediction for the individual. We have seen (as have others) many patients with normal serum cholesterol develop myocardial infarction and conversely abnormal serum cholesterol values do not necessarily presage this affection. It must be admitted, however, that the latter state generally is associated in high frequency with myocardial infarction, witness patients with familial hypercholesteremia, myxedema, diabetes, and other high cholesterol states.

Epidemiology

Time does not permit a detailed review of the many observations along this line but a brief

sample of the trend will enhance the current argument.

Several years ago it came to light that the native Bantu in South Africa, living largely on a mealie meal diet, apparently had a much lower incidence of "degenerative" heart disease than local white South African groups or Americans. Later this was extended to show that as these natives moved to populated areas and acquired a better diet and income, their originally low serum cholesterol levels rose with their affluence. The peoples of Southern Italy likewise showed a less striking but sharply lower death rate from this type of heart disease. Additional comments have been made on the fall of death rate with restricted fat diets during the war periods in Denmark and Britain. Objection to this is noted below.

More recently, attention has been called to the quite low coronary heart disease death rate in the Japanese and the concomitant low cholesterol levels in certain Japanese groups. Keys, extending this in a recent study with White and Bronte-Stewart, found a rather striking correlation between the per cent of fat calories in the diet and serum total cholesterol in four groups of Japanese farmers, miners, mechanics, and clerks. This was compared to a high dietary fat-high cholesterol finding in Japanese living in Los Angeles. Hawaiian Japanese occupied a position between the two groups both as to diet and as to serum cholesterol level. It seemed to be clear that male Japanese mortality was about one-tenth American male mortality for coronary heart disease but figures were not available for Japanese living in America.

While these and numerous other studies are convincing, Page *et al.*, Morrison and others have voiced objection to the accuracy of this type of study. Page particularly points out the inaccuracies brought about by differences in diagnosis and certification in different countries and also the equally difficult task of estimating fat consumption of a group of individuals in any country. Morris also takes an adverse view and finds no good grounds for comparison in countries with data sufficiently accurate to be reasonably compared. In Holland, Norway, and Denmark with moderate to high fat consumption, he notes "sizeable but comparatively low mortality rates"; whereas in Finland, Scotland, and New Zealand, again with diets moderately to very high in fat, the coronary heart disease mortality in middle-aged men is severe. Yudkin likewise finds no relation between fat intake and coronary heart disease noting that although the fat intake in Norway, Denmark, The United Kingdom, and Canada are essentially the same, there was considerable difference in the range of coronary heart disease mortality. He admits that, while fat consumption is higher in general in those countries with higher coronary mortality, it was lower for several years in The United Kingdom while coronary mortality continued to rise. He suggests that the relative over consumption of food associated with reduced physical exercise is one of the several causes of the disease.

Keys does not believe that exercise explains this difference and counters by returning to the finding that physical activity does not explain the large differences in serum cholesterol concentration observed between populations eating different amounts of fat. Many good clinicians believe that regular graded exercise throughout life and even after the development of coronary disease is a salutary thing. This point has not been fully clarified either concerning relation to coronary collateral circulation or the relationship of exercise to long time serum cholesterol levels. Our own experience with violent exercise in short time observations on football players does indicate a slight fall in serum cholesterol during the season of activity in spite of enormous diets high in fat. This is no doubt the general experience, as noted by Mann who found a rather striking effect of severe exercise in young males on a high calorie high fat diet. Serum cholesterol values were low during forced exercise and rose with inactivity and weight gain.

This brings up the question of obesity and its relation to heart disease of this type and to serum cholesterol levels. Insurance statistics on the former are unfavorable to obesity but other observers do not agree. In fact, as Block and his associates point out, 10 year survival rates in obese patients with angina are better than in others with angina. Turning to serum cholesterol and obesity, Brozek and Keys point out that, in general, relative underweight-overweight and obesity are associated positively with the cholesterol level when the general cholesterol level is low. In areas in which it is high, no such relationship seems to exist or at best there is a slight elevation in markedly overweight individuals.

In summary, the true relationship of dietary fat to the development of atherosclerosis is not

finally settled. If, however, we accept the tentative hypothesis that a positive relationship does exist and take an additional, even less secure, step that therapeutic reduction of serum cholesterol is a desirable thing, what methods are available and are they justified at present?

Effect of Diet on Serum Cholesterol

It is important to observe that the serum cholesterol varies considerably in any individual over an extended period of time. Long time observation is essential to determine the effect of diet. Previous epidemiologic studies appear to show a positive relationship but objections have been raised.

Our own clinical experience indicates that serum cholesterol can be lowered significantly by the reduction neutral or hydrogenated fats. Volunteer medical students electing to adjust their diet in three groups on a high, medium, and low fat basis came out with serum cholesterol findings in the same ratio respectively. A group of seven unselected subjects "cut back" on their "fats" and showed a diminished cholesterol in each case. Seven controls to match did not change their diets and had no appreciable change in serum cholesterol. This agrees with other experience.

It is also generally agreed that appreciable reduction of serum cholesterol in hypercholesteremia patients can best be accompanied by a low neutral fat diet whatever additional therapeutic maneuvers are used.

It is not difficult to instruct a patient in a low fat diet. Time does not permit a detailed dietary list here but an excellent guide to this subject is available in the book of Stead and Warren on Low Fat Cookery. The omission of solid fats from the diet and the use of vegetable oils in their stead for cooking will go a long way toward neutral fat reduction. A recent margarine on the market—high in unsaturated fatty acid content, looking like butter and tasting almost as good—relieves the "no butter" problem on the morning toast. Salad dressings can be made with corn oil or olive oil, the former being somewhat higher in unsaturated fatty acids.

Unsaturated Fatty Acids

The general agreement by Kunsill, Ahrens, Beveridge, and Bronte-Stewart, that relatively unsaturated fats of vegetable oils or unsaturated fats of marine origin tend to lower serum cholesterol in human beings whereas the hydrogenated vegetable oils or animal fats tend to raise serum cholesterol, immediately set off a wave of interest among clinicians. I am sure that many found as we did that some of these oils could be used for cooking but were poorly tolerated in large amounts as medication. Lately, however, capsules containing reasonable amounts of unsaturated fatty acids are available and, in unpublished reports, four capsules a day have been said to lower serum cholesterol levels when given over long periods. We do not know whether this will prove advisable or not but it holds interest and we have a number of hypercholesteremic patients on such a regimen.

The extreme importance of using a diet low in saturated fats in conjunction with administration of unsaturated fatty acids as such or as corn oil has been brought out by Keys who points out that the removal of 1 Gm. of butter fat from the diet has about the same cholesterol lowering effect as the addition of 3 Gm. of one of the high linoleic acid oils. In other words, exclusion of the saturated (Keys) fats has the greatest effect and this can be enhanced by the addition of corn oil and cotton seed oil.

Sitosterol

The administration of sitosterol for the lowering of serum cholesterol has been advocated by some, and questioned by others. It apparently has some effect on lowering serum cholesterol; but according to Riley and Steiner still further observations are necessary to establish that the fall in serum cholesterol coincident with sitosterol ingestion is greater than the fluctuation of serum cholesterol levels that ordinarily occurs in patients with coronary atherosclerosis. Our patients do not like the chalky mixture, the daily amounts necessary and the expense involved. Long time studies show a tendency to rebound after initial fall of serum cholesterol in spite of continued administration of sitosterol.

Conclusion

The high fat diet has been indicted but not convicted as a cause or accelerator of atherosclerotic heart disease. However, suspicion runs sufficiently high to warrant the reduction of our already high fat diet (45 per cent of total calories) to a reasonably lower value (25 to 30 per cent). At present this should apply to patients with coronary disease or hypercholesteremia, or both.

The use of cooking oils high in unsaturated fatty acids is warranted.

The administration of unsaturated fatty acids

as such, or as oils of high unsaturated fatty acid content, as medication in large amounts is under study and the true value of such a maneuver is not known. It would appear to be harmless.•

University of Virginia School of Medicine (Dr. Wood).

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Our Dual Legal System

Our double decker system of state and federal laws may drive tidy minds mad.

Why should man and wife share community property here, while in New England only the husband holds title? How can Uncle Sam tax crooks for things the states make crimes? Why jail a gangster not for murder but for his back taxes?

Well, the reason is simple. By dividing the large sources of power, we make power-grabbing hard. The federal government can do some things the state others. And the forty-eight states have wide scope to run their affairs as they like whether they jibe or not with other states.

Yet we strive for some uniformity.

1. Our states have commissions to study uniform laws, but each state chooses to enact them as they please.

2. State courts dig away at the problem. There is a tendency for the courts to strive for uniformity in the law by following precedents set in other states.

3. The U. S. Supreme Court may move in once in a while. The First Amendment forbids Congress but not the states "from abridging the freedom of the press."

Not until 1925, did the U. S. Supreme Court side with the press against state laws which curtailed the freedom of the press.

New York had passed a law, which limited the press, against printing articles urging "criminal anarchy." To rescue the free press, the Supreme Court had to by-pass the First Amendment. It turned to the Fourteenth which forbade a state from depriving a person of "life, liberty, or property without due process of law." The Court held the due process clause protects the 'liberty' of the press "from impairment by the states."

Such decisions require more uniformity in the laws of all states by requiring all states to refrain from passing laws in restraint of basic constitutional rights.

(This column is written to inform, not advise. Facts may change the application of the law.)

Washington State Bar Association

Clinical Pathologic Conference

MULTNOMAH COUNTY HOSPITAL, PORTLAND, OREGON

Prepared under the direction of Warren C. Hunter, M.D.

Hance F. Haney: This patient presents an interesting example of the common problem of multiple system disease in the aged patient. That is, he presented good evidence of urinary tract infection and obstruction, evidence of old healed apical tuberculosis and bilateral cataracts. I am sure all of us who have worked in the clinics could think of many more possibilities which might have been brought out with further study.

History

Dr. Haney: This 78 year old man was seen in the clinics initially because of the symptoms of urinary tract obstruction and later because of bilateral cataracts. Inactive tuberculosis was thought to be present in both apices of the lungs as judged by x-ray findings. In June, 1955, he was admitted for the first time to Multnomah County Hospital for perineal prostatectomy for relief of urinary tract obstruction. At surgery an invasive nonresectable malignancy of the prostate was found, and radical prostatectomy was felt to be impossible. We have then a diagnosis of carcinoma of the prostate at the outset of our consideration. In October, 1956, because of low back pain, x-rays of the pelvis and lumbosacral spine were obtained, and a collapse of the fifth lumbar vertebra demonstrated. On the basis of the x-ray findings it was felt that the etiology was osteoporosis rather than malignancy. We have then at this point no x-ray evidence of metastatic malignancy. Hormone therapy was instituted and carried out for a period of at least two years. His second admission to Multnomah County Hospital was occasioned about 10 months later by increasing evidence of urinary tract obstruction, and again no evidence of bony metastases was demonstrated on x-ray studies. The acid phosphatase at this time was 1 King-Armstrong unit. Transurethral resection produced tissue which again was found to be carcinoma of the prostate. Two weeks later an orchiectomy was done under local anesthesia. Stilbesterol therapy was again initiated. During the course of the hospitalization he received two transfusions. From August to October the patient felt quite well, but sometime in October he developed gradually increasing jaundice and dark urine and because of this was admitted to Multnomah County Hospital. At this time, examination revealed normal edge of the liver in normal position. During further examinations it was found that the size of the liver decreased progressively. We have listed considerable laboratory work which, I am sure, all of you have noted. I am going to ask the students to answer just a few questions. In a patient of this kind one of our first problems is to explain the jaundice. Up to the time that he developed jaundice the diagnosis seemed quite clear.

Questions

Dr. Haney: We now have four important questions:

1. How can we best explain the development of jaundice?
2. What laboratory evidence would support the impression?
3. Does the protocol indicate need to bring in other possibilities in differential diagnosis?
4. What evidence may be presented for or against the presence of extensive metastatic disease?

X-Ray Findings

Charles T. Dotter: The chest films disclose bilateral apical infiltrative densities showing no change over several years and believed to be due to inactive pulmonary tuberculosis. Examination of the genito-urinary tract at an early date disclosed bilateral function with no dilatation. Two years later another study demonstrated moderate dilatation of the left collecting system after ap-

parent nonfunction of the right kidney. Radiographic examination of the skeleton showed chronic collapse of L-5 but no other discrete osseous abnormality. Borders of the bone show no destruction, and adjacent bone is similar in density. Radiologic diagnosis of this lesion was osteoporotic collapse. Contract examination of the bladder, subsequent to the initial prostatectomy, disclosed heaped-up, rounded densities at the base of the bladder, consistent with recurrent carcinomatous tissue. In summary, then, the films disclose diminished renal function, bilateral chronic inactive apical tuberculosis, recurrent mass at the floor of the bladder and an osteoporotic collapse of L-5.

Application of Laboratory Data

Warren C. Hunter: This case has so many interesting clinical pathologic-facets that Dr. Landreth of the Department of Clinical Pathology has prepared a brief summary on lantern slides. We will turn the meeting over to him for a time now.

Eugene Landreth:

Table 1.

Hepatic Function Studies		Normal
Serum Bilirubin	10.8 mg.	1 mg.
Direct	7.4 mg.	
Indirect	3.4 mg.	
Serum Albumin	2.9 Gm.	3.2-4.1 mg.
Serum Globulin	3.9 Gm.	2.6-3.8 mg.
Total Protein	6.8 Gm.	6-7.8 mg.
Thymol Turbidity	22 units	0-5 units
Cephalin Flocculation	4+units	0-1+units
Alkaline Phosphatase	14 units	0-13 units
Prothrombin Time	11 %	100 %
Vitamin K Response	None	

It is very gratifying to the clinical pathologist to find a case in which all of the laboratory findings are concise, clear cut, quite consistent and really need very little elaboration. The laboratory results can be divided into three main groups: those dealing with hepatic function, those dealing with renal function and the urinary tract, and the electrolyte studies. First are the hepatic function studies which are not excessive in number but certainly represent an adequate battery of tests. As you can see, all of the liver function studies are abnormal except for alkaline phosphatase. There is very low prothrombin time and there is no vitamin K response. There is reversal of the albumin-globulin ratio with low serum albumin. There is high serum bilirubin with predominance of direct reacting bilirubin.

Table 2.

	Pre-H	Post-H	Hepatic	Patient
Bilirubin	I	D	D	D
Alkaline Phosphatase	O	+++	O−+	O
Flocculation Test	O−+	O	+++	+++
Proteins	O	O	−A+G	−A+G
Vitamin K Response		Normal	Impaired	

To visually illustrate the distinguishing features of these tests it is interesting to compare them with the laboratory results usually found in hepatic, prehepatic, and posthepatic jaundice. How clearly this demonstrates the correlation with the typical picture of hepatocellular disease: Increased serum bilirubin more direct than indirect, normal alkaline phosphatase, increased flocculation and turbidity studies, low serum albumin and high serum globulin, and impaired response to vitamin K. To me this series of liver function studies is quite characteristic of hepatocellular disease.

Table 3.

Renal and Urinary Tract	Normal	
BUN	12 mg./100 ml.	7-15 mg./100 ml.
Urine	4 + Pus	
	Many Bacteria	
	Aerobacter Aerogenes	
Acid Phosphatase	1 unit	0-3 units
Acid Phosphatase	4 units	

Tests related to the urinary tract show BUN of 12 mg. per 100 ml. which is quite normal, urinalysis indicating urinary tract infection, and two acid phosphatase determinations, first of 1 KA unit and then of 4 KA units. Acid phosphatase of 4 units is approaching the suspicious range, which is around 5. In this situation the determination of the so-called true prostatic phosphatase might be helpful in evaluating this result.

Table 4. Electrolyte Studies.

Serum Sodium	132 mEq./L
Serum Potassium	−3.7 mEq./L
Serum Chloride	106 mEq./L
Serum Bicarbonate	20 mEq./L

The electrolytes tested are normal save for a slightly lowered alkali reserve. The only test that really bothers me is the sedimentation time, which is normal in the face of the elevated serum globulin, and an obvious urinary tract infection.

Clare Peterson: I would like to go back in the protocol for a short way, Dr. Hunter, before you clarify the situation, because the terminal events interest me and are of some considerable significance. Dr. Haney has indicated that this man had severe and multiple system disease, and the clinical laboratory evidence is convincing that there was severe liver disease. Yet, from a clin-

ical standpoint, he remained rational, cooperative, and reasonably stable until sudden, severe, and continuous epigastric pain developed. Someone has to explain what happened, and it is not just a matter of the why-of-it, but of the whys-of-it (as Alan Gregg once said in discussing the phenomena of dying and death).

I can see any number of possibly reversible situations in the terminal events described and, surely, everyone with liver damage does not die a so-called liver death. So the possibility of an abdominal catastrophe must be considered: an undiagnosed hemorrhage from stress ulcers of the esophagus, stomach or duodenum; or endocrine failure, specifically acute adrenal insufficiency; or death from the unrecognized hypoxia of a space-taking bilateral pleural effusion in such a patient. In addition to these possibilities, with the quiet, distended and tympanitic abdomen there is the old possibility of acute gastric dilatation. And of the possibilities, there are more.

I mention them at this point, because something happened suddenly to a patient who had been relatively stable, though seriously ill, and this something led to a series of events which terminated in death. And this may very well have represented a reversible sequence.

Pathologic Findings

Dr. Hunter: The skin was deeply jaundiced; the liver was 5 cm. above the costal margin; had a sharp edge and, furthermore, was very wrinkled externally. The cut surfaces were brown, and without evidence of scarring. The liver actually decreased in size under the eyes of a very competent intern who stated that he had carefully observed the decrease in the size of the organ during life. I was able to confirm his observation. The organ weighed only 1,040 Gm. whereas all others were within normal limits for the body weight.

In microscopic sections of the liver some intact liver cells and many semi-necrotic ones were observed while others had disappeared altogether. There was some attempt to form liver cells from bile duct epithelium. Within many lobules there were some intact hepatic cells. There is enough admixture of cellular change to make one think initially of cirrhosis with a later onslaught of necrosis. However, I cannot agree that it is cirrhosis of the liver of any type for the reason that there is no increase whatsoever in the periportal connective tissue.

The real surprise in this case is not in the liver, which I think one would anticipate, but in the pancreas. Grossly the interlobular tissue was dark and bloody, accentuating the paler lobules of parenchyma. Microscopically the reason is tremendous hyperemia, edema and hemorrhage in the interstitial tissue. There is a very real pancreatitis—acute, hemorrhagic and, rather strangely, with only the most minimal fat necrosis. Some ducts contain inspissated material. A cross section through the prostate shows the old transurethral resection. There is some carcinoma within the gland and it extends into the floor of the bladder as was found in the last transurethally resected tissue. In part, the carcinoma cells are quite intact while in other areas the cells are foamy. This conceivably might represent the result of the estrin therapy for carcinoma.

Discussion

Dr. Hunter: I think there will be universal agreement that certainly one of the main causes of death in this individual was the hepatic insufficiency. I have always felt that the time relationship between the two tranfusions received at the last transurethral resection (I was told verbally he had a mild degree of shock) and the hepatitis is a clear one. Approximately two months elapsed between the transfusions and the onset of the final illness. Therefore, we feel it is entirely compatible with a homologous serum virus-type of hepatitis.

He was bleeding very widely at the time of death; the large bowel had a great deal of blood intramurally; there was hemorrhage in the sigmoid which had been visualized sigmoidoscopally. I have the feeling that the man went into severe shock at the time of the examination of the sigmoid and that this actually was the final episode. But he was also bleeding very widely elsewhere.

The pancreatitis is something entirely new to me in any fatal case of viral hepatitis or homologous serum hepatitis that I have ever seen. I have found nothing on it in the literature. The book entitled, Frontiers of Hepatitis, that came out of the conference held at the Henry Ford Hospital in Detroit a couple of years ago makes no mention whatever of any involvement of the pancreas in this type of hepatitis. In one textbook I did find the statement that sometimes in mumps, in infectious mononucleosis and in some of the Coxsackie infections, pancreatitis is known to occur.

Here we have a pronounced acute pancreatitis, not quite the usual because there is no fat

necrosis to speak of, but otherwise typical enough of acute hemorrhagic pancreatitis. There is every reason to believe that it came about in the same manner that many instances of pancreatitis do—namely, from obstruction of the ducts stopping them up enough so that when the pancreas functions actively there is enough over-distension and rupture of the secreting acini to start the process. I did not find a papillitis or any edema of the duodenum to account for obstruction.

Dr. Dotter is quite correct in saying that the collapse of the one vertebra is not due to carcinoma of the prostate, nor did the patient have it elsewhere than in the prostate and bladder. He did have healed pulmonary tuberculosis; there was bilateral hydronephrosis related to the obstruction occasioned by the carcinoma of the prostate.

The problem that exists because of the similarities and differences between infectious hepatitis and what is variously called homologous serum jaundice or better, homologous serum hepatitis has been well summarized by W. P. Havens in the Nov. 2, 1957, issue of *Journal of The American Medical Association,* pages 1091 to 1095. Immunologically there are two distinct forms recognized at the present time. Are these different diseases or variants of the same disease? The relation of the two at present is obscure.

There are certainly some points of difference, because an attack of infectious hepatitis commonly confers immunity and it is said that the disease may be prevented by the use of normal globulin, a thing that usually fails to have any effect in homologous serum hepatitis. Epidemiologic and experimental evidence indicates the lack of any cross immunity between the viruses. As far as the pathology is concerned, you have seen a little of it in this case at one phase, and I emphasize at one phase, because it makes a tremendous difference when one sees the lesion.

The disease is being better studied today than it was in the past because needle biopsies of the liver have contributed materially to the knowledge of the very earliest phases of hepatitis. First, there is what seems to be a degenerative process in the hepatic cells followed by necrosis, then their disappearance, and of course in the liver whenever there is opportunity at all for regeneration, liver parenchyma reforms with alteration of the lobular pattern because this process is not an absolutely diffuse and evenly distributed one. The reticulum is unaltered; mononuclear cells are found as the inflammatory cell; there is proliferation of the reticuloendothelium. Healing can take place and, of course, in most instances is complete.

There are three definite forms—the acute which is sometimes fulminating, a persistent variety and finally a recurrent type. Points in prevention that are of importance to all of us are the matter of sanitation, food handling, clean hands and lack of contamination of fingers by feces. One of the most important things which, I am sure, is quite familiar to all is that in the use of all needles for parenteral injection a consistent effort should be made to sterilize these by any or all of the following means: boiling for 30 minutes, or 15 to 20 pounds of steam pressure for 20 minutes, or dry heat up to 180 C. for an hour. Better still, of course, is to use new needles in every case instead of re-using them. Dr. Haney, I would like to turn the discussion back to you for additional comments.

Dr. Haney: In summary, the evidence presented supports the diagnosis of *homologous serum hepatitis* which rapidly produced extensive destruction of liver parenchyma. Dr. Peterson has pointed to the need for consideration of several diagnostic possibilities in relation to the development of epigastric pain, one of which is *acute pancreatitis.* It is of great interest that the latter diagnosis was proven at necropsy.

Is it possible that further attempts should have been made to stop the bleeding at a time when there seemed to be no rise of prothrombin in response to vitamin K? Dr. Koler, will you discuss this question?

Robert Koler: This man was bleeding; actually, I do not believe we know why. Our only evidence in this direction is a one stage prothrombin time that on two occasions was 9 per cent and 11 per cent; this may, in fact, have a bearing on the one other laboratory procedure that bothered Dr. Landreth. I would wonder if he may have been low in a number of factors including fibrinogen. We know very well that fibrinogen depression will cause a sedimentation rate that has been high to become more nearly normal; this is seen in chronic passive congestion in the liver and might have been a factor here. Another possible mechanism in a patient who has known carcinoma of the prostate certainly is an active fibrinolysin secreted by the tumor from the prostate gland. Tagnon's work has shown that stilbesterol pretty well neutralizes

such fibrinolytic enzymes, and that may have at least minimized this man's bleeding which really did not become clinically apparent, in spite of these low values for prothrombin, until terminally. I suspect, if specific measurements had been made, that there might have been a depression of several factors, including prothrombin, proaccelerin, fibrinogen and perhaps others. To get to the answer to your question, Dr. Haney, I think that if it had been available and if there had been time to give it, fresh plastic bag blood plus continuing the stilbesterol would have been the treatment of choice in this preterminal bleeding state.

Dr. Dotter: I question Dr. Landreth on his statement about the inconsistency between the laboratory data and the clinical story. The lack of consistency is one of interpretation. The facts are, of course, consistent. Also, would it not be worthwhile to attempt to track down the donor who gave the suspect transfusion and take him out of future circulation?

Howard Lewis: Hemorrhage like this is seen very commonly in acute hepatic necrosis, which is what we are dealing with here. I think Dr. Koler very properly stated it when he said that there are undoubtedly a number of factors involved in the causation of such bleeding, and some of these factors, no doubt, had nothing to do with the clotting mechanism that are more properly related to vascular injury at the capillary level. As one watches a person go through the evolution of an acute hepatic necrosis, which I have had the chance to seen on a number of occasions, one of the things that appears near the time of death, usually within about 12 hours of demise, is this sudden outburst of hemorrhage which cannot be controlled with transfusions. It is not clearly related in every instance to the prothrombin time because I have seen death occur within 48 hours of the time of onset of any evidence of illness. I would say that this bleeding is characteristic of a state of acute hepatic necrosis or acute yellow atrophy. Sometimes we see the liver go on to the point where the only thing that is left is the reticulum and amorphous debris, yet with no recognizable evidence of liver disease. I have never seen, as pointed out by Dr. Hunter, an associated pancreatitis with infectious hepatitis. As I looked at these slides, Dr. Hunter, it looked to me like these were mostly polymorphonuclears. Is that correct?

Dr. Hunter: No, they are monocytes.

Dr. Lewis: And that is not the kind of cellular infiltrate one would necessarily expect in a bile type of disease is it? Would it suggest that there might be two things? And to make it harder, pain of the kind that this man had is also seen in acute hepatic necrosis.

I think this fits into the category of what our genial friend Dean Seabrook always says "in my series of one case." We would have to put it in this category, because I have not seen it happen before. We are dealing with a different organ. I do not know whether there are always granulocytes in pancreatitis of the ordinary variety in which hemorrhage is a factor. I can not answer it because I do not have a standard or anything to go by.

Are there any questions from the floor?

The question was asked as to how does one explain the pain in acute hepatic necrosis and also what is the cause of the hyperthermia seen so frequently? The pain is difficult to explain. We have always thought that hepatic pain, as we know it, is due to capsular stretching and inflammation, and there is no question that it is the most common cause of hepatic pain. However, it has been demonstrated that there are pain fibers within the liver itself extending along the blood vessels probably well up near their terminal branches and that these pain fibers are capable of transmitting pain from unknown disturbances within the liver. There are enough cases on record to support this so that I think there is little doubt that this is one pain mechanism. There can be pain from something intrinsic in a liver disease that is unassociated with the capsular distention and, as a matter of fact, may be associated, as in this case, with capsular shrinkage. I think that is the explanation for the pain seen in this disease. There is no other logical explanation. We know that the nerve fibers are there, which has not been thought to be true until recent years.

No doubt the fever, to a considerable degree, has a cerebral cause. You can not help but believe that the thermal regulatory apparatus is out of order in these people because so often their temperature curve will, in the terminal stages of disease, instead of showing the usual swings as in a fever associated with infection, necrosis or other causes, will start to go up steadily in the same way that you see the temperature rise in a person who has had a craniotomy, a head injury, terminal stages of meningitis or an injury to the brain by an acute vascular lesion.

I feel sure that much of this fever is due to a disturbance to the thermal regulatory apparatus by the intoxication that exists. We of course know that there is an acute biochemic injury to the whole body and to the brain, associated with hepatic insufficiency and liver coma, the ammonia intoxication being only an illustration of an important feature of it.

There is one last thing that I would like to ask the resident who saw this patient. So often the initial manifestation of the onset of acute hepatic necrosis is a change in personality. I know every student has heard this time and again, but I can not emphasize it too much. I remember seeing a young fellow once in the Army, when we were just learning about this situation, who had had two colostomies for bullet wounds and was emaciated. He was a very nice fellow. All of a sudden he began to be irritable and his personality changed completely. Before he died he was in hepatic coma for five days. Dr. Edwards, did this man show any such manifestations?

Miles J. Edwards: The man was disoriented, but after starting tube administration of 3,000 calories per day he quite dramatically changed and became rational again.

Conclusion

Dr. Hunter: I have always felt that the decision to use blood in this case is open to question. I heartily agree with Dr. Dotter that the blood bank should be notified in cases of this kind so that virus carrying donors never will be bled again.•

Federal Medical-Health Spending for Fiscal Year 1959

(July 1, 1958 to June 30, 1959)

The Federal Government's medical activities are on a massive scale and they continue to grow. This year for all health programs (research, medical care, public health) Uncle Sam is spending about 62.6 per cent more than he did five years ago, 13.5 per cent more than last year. Programs in 22 separate agencies and departments of Government range from cancer research to federal employee clinics. The total cost is $2.8 billion, or $344.7 million more than last year. Right now the agencies and the Bureau of the Budget are working on requests to be presented to Congress in January. There is little question that the bills, when finally enacted next year, will set another new high for medical spending.

Medical-Health Budgets of Federal Departments Agencies and Commissions for This Fiscal Year

AGENCY	FISCAL 1959	FISCAL 1958
Department of Health, Education, and Welfare	$1,116,207,806	$ 849,395,800
Veterans Administration	843,524,000	849,374,000
Department of Defense	751,115,000	702,305,000
Atomic Energy Commission	45,462,000	40,085,000
International Cooperation Admin.	39,600,000	37,300,000
Department of State	21,638,380	15,718,110
National Science Foundation	19,575,000	7,500,000
Office of Civil and Defense Mobilization	13,617,000	3,177,000*
Federal Employees Health Programs	11,000,000	10,000,000
Department of Labor	8,827,000	8,069,476
Panama Canal Co. and Panama Canal Zone Government	3,959,900	5,988,300
Department of Treasury	3,854,500	3,837,850
Department of Justice	2,105,000	1,796,000
District of Columbia	2,000,000	3,700,000
Federal Trade Commission	1,600,000	1,500,000
Department of Commerce	1,212,400	911,300
Civil Service Commission	426,000	387,000
President's Comm. for Employment of the Physically Handicapped	214,700	182,575
Small Business Administration	150,000	70,000
Department of the Interior	140,000	154,950
National Advisory Committee to Selective Service	19,000	19,000
Office of the Attending Physician of Congress	13,145	12,145
TOTALS	$2,886,260,831	$2,541,483,506

*The figure for fiscal 1958 is the appropriations of the Federal Civil Defense Administration and the Office of Defense Mobilization; now combined in the Office of Civil and Defense Mobilization.

From AMA Washington Office, Special Report 85-15.

Cutaneous Foreign Body Reactions Simulating Other Dermatoses

Michael J. Scott, M.D.
SEATTLE, WASHINGTON

Any agent capable of penetrating skin is a potential cause of cutaneous foreign body reaction. Many objects deemed unlikely to penetrate may do so under certain circumstances. The exact mechanism of penetration may vary but once the foreign substance pierces the epidermis, regardless of how accomplished, the stages for development of a foreign body reaction begin. Embedded objects are generally associated with the characteristic syndrome of inflammation, tenderness, cellulitis and suppuration but the absence of these cardinal signs does not necessarily indicate that a foreign body reaction is not present. Certain substances are less prone to cause these reactions than others. Occasionally the clinical manifestations elicited are variable and non-specific.

Substances resistant to putrefaction and decomposition may remain physically unaltered for a considerable period of time while embedded in skin or mucous membrane and are especially apt to elicit bizarre cutaneous reactions. Numerous agents, including metallic fragments, steel wool, glass, fiberglass, spun glass, plastics, wood splinters, silica, beryllium and extraneous hair are in this category. Both benign and malignant lesions may be simulated. Among other conditions, foreign body reactions may resemble verrucae, keratoses, cysts, calluses, pyodermas, deep mycoses, melanomas, and epitheliomas.

Two apparently identical foreign bodies embedded simultaneously in the same individual, in proximate locations, may result in two entirely different clinical pictures. For example, two wooden splinters embedded under identical circumstances in adjacent areas may produce a typical foreign body reaction at one site and a lesion clinically indistinquishable from a wart at the other. An attempt to discuss why this phenomenon occurs would only be conjecture, as the reason certain foreign bodies elicit such bizarre imitation lesions is not fully known. Discussion will be limited to these variable, nonspecific reactions which may, at times, resemble other dermatoses and thereby present baffling diagnostic problems. I will endeavor to demonstrate several such unusual foreign body reactions observed during the past decade which have simulated other dermatoses. These imitations are not common, but neither are they as rare as the few reported cases would indicate.

These foreign body reactions may so closely resemble another skin disorder that it becomes clinically impossible to differentiate the two unless the foreign body is detected. Sometimes a portion of the foreign material may be seen protruding from the lesion. In others, it is completely embedded in skin and external evidence of penetration may not exist. It may or may not be palpable. Protruding or not, a foreign body may be very difficult to detect and examination for it can hardly be too meticulous. More than a casual inspection is generally necessary.

In many instances the correct diagnosis is not made until the foreign object is accidentally observed as the lesion is being removed surgically.

A good number undoubtedly escape detection when any entire benign tumor mass is discarded without dissection following surgical removal. I believe it is an advisable procedure to thoroughly dissect any mass surgically removed from the skin prior to discarding it. On several oc-

Foreign Body Reactions Simulating Melanomas:



Blackish nodule due to an embedded portion of a fishing hook.



Bluish-black lesion surrounding an embedded metallic splinter in a hemangioma on the medial aspect of the knee.

Bluish nodule of two months duration which developed in a nevus on the posterior aspect of the ankle following the embedding of a cactus thorn.

Foreign Body Granulomas Resembling Epitheliomas:



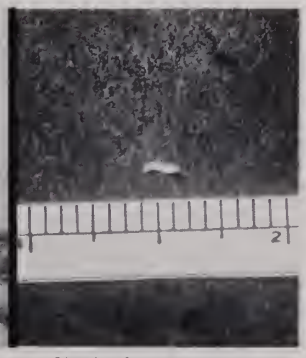
Enlarging mass of four months duration due to a glass fragment apparently embedded six years previously in an automobile accident.



Ulceration on lower lip containing two, small, embedded bone fragments. Note one bone particle protruding from superior portion of the lesion. The patient was struck with an accurately hurled bone immediately upon rendering an unfavorable comment regarding the delicacy of his wife's cooking.



Nodule in the posterior auricular region enclosing an embedded plastic fragment.



Plastic fragment recovered from patient at left. It became separated from the frame covering of the patient's glasses.

Foreign Body Granulomas Simulating Benign Lesions:



Foreign body reaction resembling a plantar wart resulting from an embedded dog hair. The hair completely penetrated the epidermis.



The dog hair extracted from lesion at left.



Cystic lesion of two months duration on left side of lower lip caused by beryllium from the lining of a broken fluorescent lighting tube. The beryllium apparently entered through a small abrasion on the lip.



Interdigital pilonidal sinus between the ring and middle fingers of a barber's hand resulting from embedded hair fragments.

casions I have found this to be a rewarding habit as minute foreign bodies completely embedded in the tumor mass may otherwise be overlooked.

It may be argued that it is just of academic interest to find the specific etiologic foreign agent in disposable material since a cure will result once it has been removed, either knowingly or unknowingly. Nevertheless there is at least some self-satisfaction in having discovered it. The foreign substances previously mentioned generally appear physically unaltered due to their resistance to decomposition. Several objects I have removed had apparently been embedded for many months, and a few for many years.

In general, all of these unusual lesions are nonspecific and unless the foreign object is located a definite diagnosis can not be rendered without considerable reservation. Except for their foreign body content they are frequently indistinguishable from the disorder they mimic. In my experience the sites of predilection are the exposed cutaneous areas although they do occur elsewhere. Since males doing manual labor are more apt to encounter agents capable of penetrating skin, unusual foreign body reactions of this type occur more frequently in them. Housewives, however, accumulate their fair share when utilizing steel wool scouring pads (e.g., SOS, Brillo) and other agents encountered around the home.

Conclusion

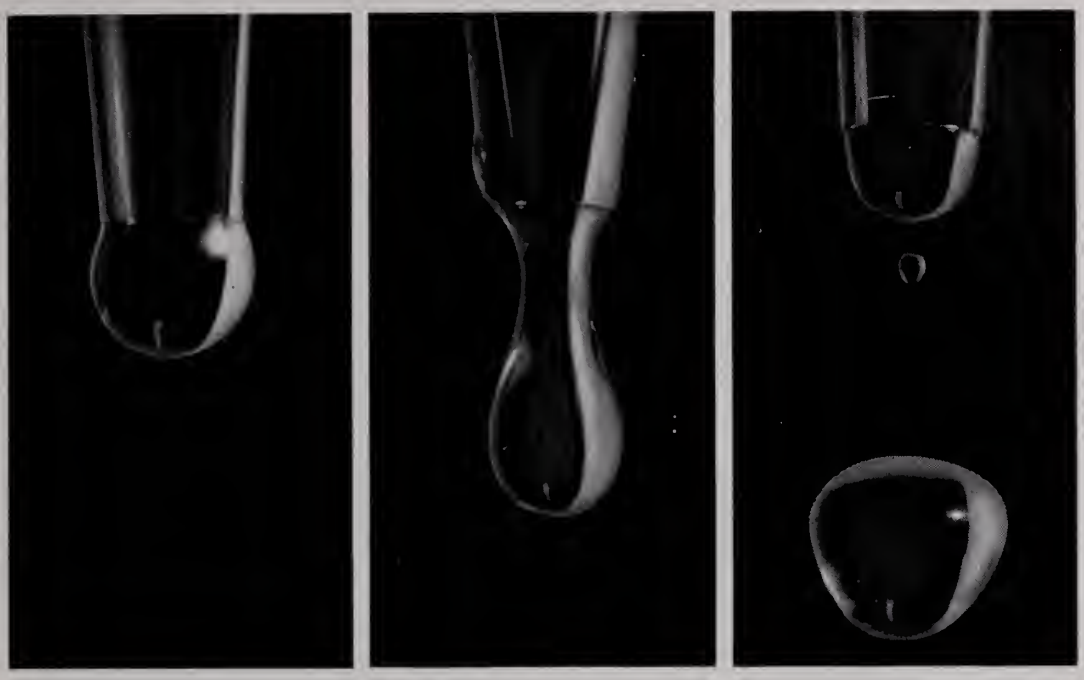
Certain foreign body substances occasionally elicit bizarre cutaneous reactions which may present a baffling diagnostic problem. Both benign and malignant lesions may be simulated. These lesions, although not common, are more prevalent than the few reported cases would indicate. A high index of suspicion is perhaps the most important prerequisite in making a diagnosis. ●

905 Medical-Dental Bldg. (1).

Blue Shield Payments to Physicians

Blue Shield plans in the United States paid physicians nearly $268 million for services rendered members during the first six months of 1958. This represented slightly more than 92 per cent of the Plans' earned subscription income. Payments to physicians by U. S. and Canadian Plans combined topped $289 million in the same period—representing 92.5% of total earned subscription income.

From Blue Shield Medical Care Plans Newsletter, Volume 3, November 1958.



In Biliary Distress

ZANCHOL®

Improves Flow and Color of Bile

Zanchol (brand of florantyrone), a distinct chemical entity unrelated to the bile salts, provides the medical profession with a new and potent hydrocholeretic for treating disorders of the biliary tract.

The high degree of therapeutic activity of this new compound and its negligible side reactions yield distinct clinical advantages.

- Zanchol produces a bile low in sediment.
- Zanchol enhances the abstergent quality of bile.
- Zanchol produces a deep, brilliant green bile, regardless of its original color, suggesting improved hepatic function.
- Zanchol improves the flow and quantity of bile without increasing total bile solids.

Bile with these qualities minimizes biliary stasis, reduces sediment and debris in the bile ducts and discourages the ascent of infection.

For these reasons ZANCHOL has shown itself to be a highly valuable agent in chronic cholecystitis, cholangitis and care of patients following cholecystectomy.

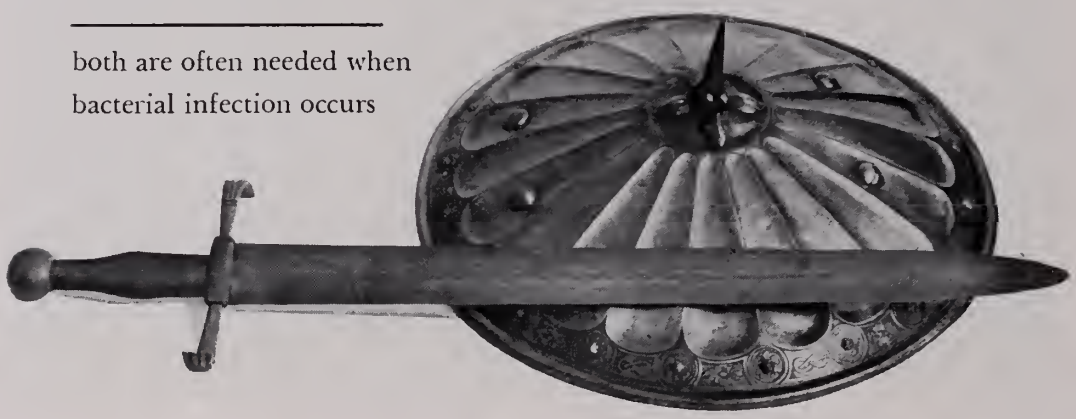
Administration: One tablet three or four times a day. Zanchol is supplied in tablets of 250 mg. each. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

▮ prompt, aggressive
antibiotic action
▮ a reliable defense against
monilial complications

---

both are often needed when
bacterial infection occurs



for a direct strike at infection

Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

It provides the new chemical form of the world's most widely prescribed broad spectrum antibiotic.

It provides unsurpassed initial blood levels — higher and faster than older forms of tetracycline — for the most rapid transport of the antibiotic to the site of infection.

for protection against monilial complications

Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.*
Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

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Whenever a diagnostic "tool" can give you some *added* advantage in *better* performance or *wider* usefulness — your own diagnostic skill is aided by *more complete facts*, and your time is saved through simpler, more convenient use. *Each of these Sanborn instruments gives you just such added advantages.*

With the new Rappaport-Sprague Acoustic Stethoscope, sounds which are only faintly discernible or at the threshold of audibility with conventional stethoscopes become clearly audible, providing new assurance in auscultation. Equipped with five chest pieces for sensing and localizing sounds of various pitch, and three sets of ear pieces for proper fit, this new Stethoscope clearly reflects the results of ten years of research and investigation undertaken during its development.

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A Summary Report on

CORTROPHIN®-ZINC

(Corticotropin-Alpha Zinc Hydroxide)

Description: A unique patented electrolytic process (developed by Organon research) produces a complex of *alpha* zinc hydroxide and corticotropin. This complex offers considerable advantages for practical ACTH therapy.

Characteristics: New Cortrophin-Zinc provides corticotropin of unsurpassed purity with low foreign protein content. This reduces the risk of sensitization reactions.

Since about 5% of the corticotropin is uncombined, onset of clinical response is rapid. But the balance, present as a complex of alpha zinc hydroxide, provides a prolonged action so that the effective time span of a single dose is usually several days. Injection of the new electrolytic Cortrophin-Zinc is virtually painless.

Pharmacology: A potent stimulator of cortical activity, Cortrophin-Zinc *does not depress* functioning of the suprarenal glands. Unlike the corticosteroids, adrenocorticotropic hormone arouses the adrenal glands to produce *natural* steroids in natural proportions. In a 5-year study of patients on ACTH therapy, no case of adrenal *or pituitary* depression or atrophy has been observed.

Because Cortrophin-Zinc is virtually painless on injection and its prolonged action obviates frequent injections, it is now practicable to use Cortrophin-Zinc in most of the indications where formerly reliance has been on corticosteroids. This freedom from apprehension of deleterious depressive effects permits clinical use of valuable hormone therapy on a broader scale than has been possible heretofore.

Clinical Uses and Dosage: The many published reports on the use of Cortrophin-Zinc as well as ACTH, in thousands of patients indicate its value in over 100 disorders. Most responsive have been: allergies and hypersensitivities, rheumatoid arthritis, bronchial asthma, serum sickness and inflammatory skin and eye diseases.

Dosage should be individualized, but generally initial control of symptoms is obtained with a single injection of 40 units of Cortrophin-Zinc daily, until control is evident. Maintenance dosage is generally 20 units (or less) twice a week.

Use of Cortrophin-Zinc with oral steroids is now recommended as a safety measure to supply the important suprarenal stimulation and lessen the hazard of atrophy. Periodic use of Cortrophin-Zinc is advocated with all steroid analogs, such as cortisone, hydrocortisone, prednisone, prednisolone, methylprednisone, and triamcinolone.*

Supply: 5-cc vials containing 40 and 20 U.S.P. units of corticotropin per cc; 1-cc ampuls containing 40 and 20 U.S.P. units of corticotropin, with sterile disposable syringes.

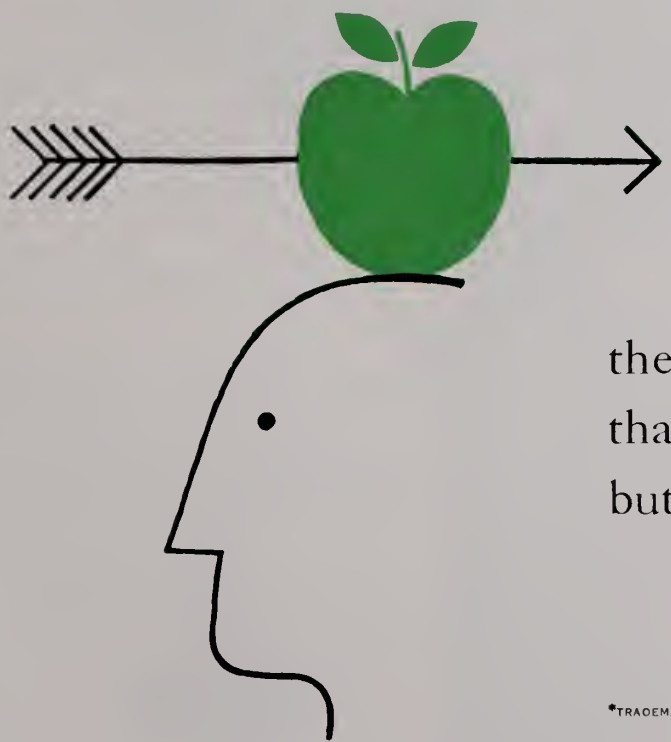
*Write for complete literature and bibliography containing specific dosage schedules to:

Medical Department

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There is only one
methylprednisolone,
and that is

Medrol*



the corticosteroid
that hits the disease,
but spares the patient

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in peptic ulcer



KOLANTYL: with 4 needed healing actions

1. **vital antispasmodic action**—BENTYL—Merrell's fast, safe antispasmodic . . . relieves spasm-pain promptly, without atropine-like side effects. 2. **balanced acid-neutralizing action** — magnesium oxide and aluminum hydroxide—prompt, long-lasting relief . . . no laxation, no constipation. 3. **demulcent action**—Methylcellulose—soothing protective coating covers ulcerated area, promotes healing. 4. **antienzyme-antipepsin action**—Sodium Lauryl Sulfate — effectively curbs necrotic effects of pepsin and lysozyme . . . prevents further erosion. **Dosage**—Gel: 2 to 4 teaspoonfuls every 3 hours, or as needed. Tablets: 2 tablets (chewed for more rapid action) every 3 hours, or as needed. **NON-CONSTIPATING . . . NON-LAXATING**

TRADEMARKS: "BENTYL," KOLANTYL®

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Formula: Each tablet or 10 cc. gel contains:
Bentyl (dicyclomine) Hydrochloride . . . 5 mg. / Aluminum Hydroxide Gel, Dried . . . 400 mg. / Magnesium Oxide, Heavy . . . 200 mg.
Sodium Lauryl Sulfate . . . 25 mg. / Methylcellulose . . . 100 mg.

this pediatrician uses Romilar CF

When it comes to colds and coughs, pediatricians are no different from their patients . . . they all want to get rid of their symptoms and stay up and about, if possible.

Romilar Cold Formula controls the entire symptomatology of colds, including coughs. A synergistic combination,* Romilar CF

checks coryza
suppresses coughing
relieves congestion
controls fever and malaise

Each teaspoonful (5 cc) of pleasantly flavored syrup, or each capsule, contains: 15 mg Romilar HBr (non-narcotic antitussive); 1.25 mg Chlorpheniramine maleate (antihistamine); 5 mg Phenylephrine HCl (decongestant); 120 mg N-acetyl-p-aminophenol (analgesic-antipyretic).

*L. O. Randall and J. Selitto, *J. Am. Pharm. Assn. (Sc. Ed.)*, 47:313, 1958.

Romilar® Hydrobromide—brand of dextromethorphan hydrobromide



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Division of Hoffmann-La Roche Inc • Nutley 10 • N. J.

IN ACNE

Fostex® degreases the skin and helps remove blackheads

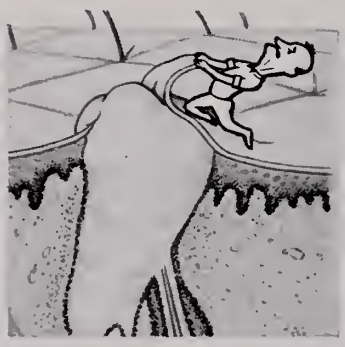


Fostex contains a combination of surface active agents (Sebulytic*) which:

◂ Completely emulsify excess oil so that it is quickly washed off the skin.



◂ Penetrate and soften comedones, unblocking the pores and facilitating removal of sebum plugs.



Fostex dries and peels the skin

◂ The Sebulytic base of Fostex dries and promotes peeling of the skin . . . actions enhanced by the keratolytic effects of micropulverized sulfur and salicylic acid.

*(Sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate, sodium dioctyl sulfosuccinate.)

FOSTEX CREAM
for therapeutic washing of skin in the initial phase of acne treatment, when maximum degreasing and peeling are desired.

FOSTEX CAKE
for maintenance therapy to keep skin dry and substantially free of comedanes.



Fostex is easy for your patients to use

◂ Patients stop using soap on affected skin areas. Instead they use Fostex for therapeutic washing of the skin. The Fostex lather is massaged into the skin for 5 minutes—then rinse and dry.

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Meat...

and its fat-protein calorie ratio*

For every calorie of fat provided by the average American dietary only 0.3 calorie of protein is provided. The quality of this protein ranges from poor to excellent.

On the other hand, cooked meat as usually eaten supplies from three to five times this number of protein calories in relation to the calories derived from its fat. The protein of meat is invariably of high biologic quality.

	Calories from Fat	Calories from Protein
in the average American dietary	1	0.3
in beef rump roast	1	1.27
in beef flank steak	1	1.42
in lamb leg roast	1	1.55
in pork loin chop (lean portion only)	1	1.36
in cured ham	1	1.04
in veal cutlet (lean portion only)	1	1.40

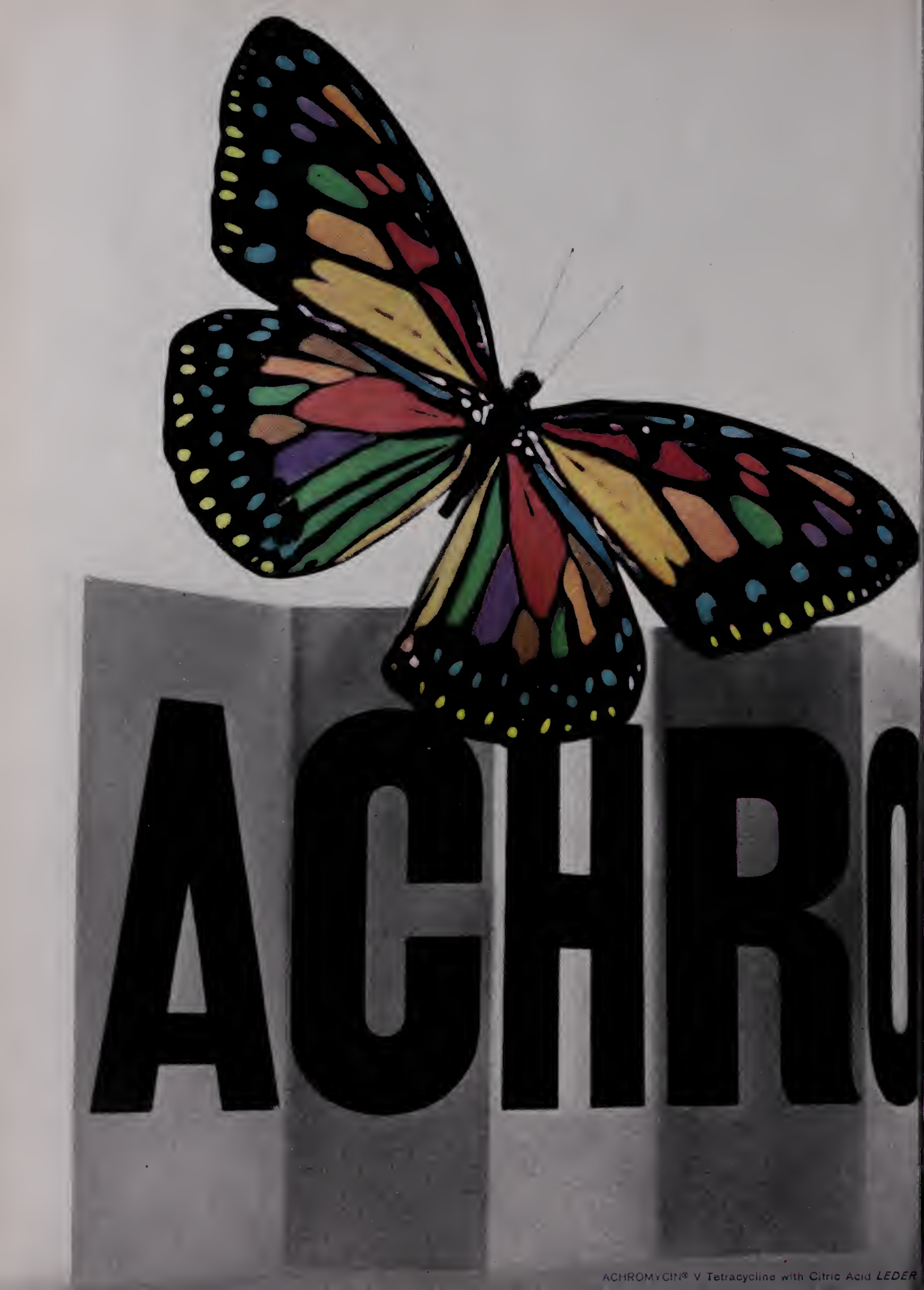
The high protein yield of meat exceeds that from any other main dish food in man's diet. The amino acid composition of meat protein closely approaches the quantitative proportions needed for effective biosynthesis of human tissue.

Meat—the chief source of top-quality protein, B vitamins, and minerals in the American diet—is also an excellent vehicle for nutritionally valuable fat, the amount of which is readily controlled by trimming and by selection of cuts.

*Leverton, R.: The Fat, Protein, and Calorie Value of Cooked Meats. Proc. 9th Research Conf. sponsored by the Council on Research of the American Meat Institute, University of Chicago, March 1957.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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ACHROMYCIN® V Tetracycline with Citric Acid *LEDER*


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during pregnancy

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Help protect her now, and you help insure better future health for her and her baby. A single NATABEC Kapseal each day provides all the vitamins and minerals the gravida or nursing mother needs to supplement a well-rounded diet.

each NATABEC Kapseal contains:

Calcium carbonate	600 mg.
Ferrous sulfate	150 mg.
Vitamin D	(10 mcg.) 400 units
Vitamin B_1 (thiamine) mononitrate	3 mg.
Vitamin B_2 (riboflavin)	2 mg.
Vitamin B_{12} (crystalline)	2 mcg.
Folic acid	1 mg.
Synkamin® (vitamin K) (as the hydrochloride)	0.5 mg.
Rutin	10 mg.
Nicotinamide (niacinamide)	10 mg.
Vitamin B_6 (pyridoxine hydrochloride)	3 mg.
Vitamin C (ascorbic acid)	50 mg.
Vitamin A	(1.2 mg.) 4,000 units
Intrinsic factor concentrate	5 mg.

dosage As a supplement during pregnancy and throughout lactation, one or more Kapseals daily. Available in bottles of 100 and 1,000.



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use XYLOCAINE *first...*
as a local anesthetic
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SWAB SPRAY INFILTRATION NERVE BLOCK



Xylocaine HCl solution, the versatile anesthetic for general office surgery, relieves pain promptly and effectively with adequate duration of anesthesia. It is safe and predictable. Local tissue reactions and systemic side effects are rare. Supplied in 20 cc. and 50 cc. vials; 0.5%, 1% and 2% without epinephrine and with epinephrine 1:100,000; also in 2 cc. ampules; 2% without epinephrine and with epinephrine 1:100,000.

XYLOCAINE® HCl SOLUTION
(brand of lidocaine*)

Astra Pharmaceutical Products, Inc., Worcester 6, Mass., U.S.A.

SEE PDR

*U.S. PAT NO. 2,441,498 MADE IN U.S.A.

why all the fuss over potassium?



Many physicians will recall when safe but potent organomercurials were first introduced. At the time there was considerable worry about possible potassium loss. Patients were instructed to take foods rich in this mineral, and not infrequently potassium supplements also were advised. After enough experience was gained, it became evident that only the exceptional case could lose enough potassium to be concerned about. And with oral organomercurial diuretics this was practically never a problem.

Why revive the subject now? Because clinical experience with nonmercurial diuretics indicates most of them have such a specific effect on potassium that with their use very real problems must be faced. Enough potassium loss can lead to digitalis toxicity or to a classical overt hypopotassemia. Since a fair percentage of cardiacs who receive diuretics are also digitalized, this excess potassium excretion is clinically serious. Clinical experience is still too limited with some nonmercurial diuretics to say just how often such loss will occur—but warnings already have been sounded by some clinical investigators as to the need for potassium supplementation.

Experience in many patients, for many years, demonstrates that potassium loss is never a problem when NEOHYDRIN® is the oral diuretic. And there is no refractoriness to this effective oral organomercurial.

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Now—All cold symptoms can be controlled

This new timed-release tablet provides:

...the superior decongestant and antihistaminic action of Triaminic

...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks

...an expectorant to help the patient expel thickened mucus

...the specific antipyretic and analgesic effect of well-tolerated APAP

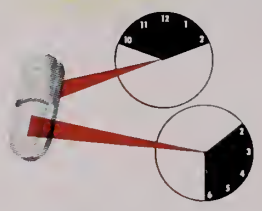
...the prompt and prolonged activity of timed-release medication

Each* TUSSAGESIC *Tablet contains:

TRIAMINIC®	50 mg.
(phenylpropanolamine HCl	25 mg.;
pheniramine maleate	12.5 mg.;
pyrilamine maleate	12.5 mg.)
Dormethan (brand of dextromethorphan HBr)	30 mg.
Terpin hydrate	180 mg.
APAP (N-acetyl-p-aminophenol)	325 mg.

Also available:
for those who prefer liquid medication—
Tussagesic suspension
In each 5 ml.: Triaminic, 25 mg.; Dormethan, 15 mg.; terpin hydrate, 90 mg.; APAP, 120 mg.

Tussagesic timed-release tablets provide relief in minutes, which lasts for hours



first—3 to 4 hours of relief from the outer layer

then—3 to 4 more hours of relief from the inner core

Dosage: 1 tablet in the morning, mid-afternoon, and evening, if needed. Should be swallowed whole to preserve the timed-release action.
Suspension: Adults—1-2 tsp. every 3-4 hours; Children 6-12 years old—1 tsp. every 3-4 hours; Children under 6—dosage in proportion.

NEW **Tussagesic***

**Contains* TRIAMINIC *to* STOP *running noses and open stuffed noses orally*

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ANNUAL MEETINGS
September 23-25, 1959
Medford

President, Herman A. Dickel, M.D., Portland
Secretary-Treasurer, Max H. Parratt, M.D., Portland
Executive Secretary, Mr. Rascae Miller, Portland

Oregon State Medical Society NOVEMBER COUNCIL MEETING

At its meeting on Saturday, Nov. 1, 1958 the Counеil of the Oregon State Medieal Soeiety approved two resolutions reeommended by the Soeiety's Committee on Naional Poliey for submission to the House of Delegates of the American Medieal Assoeiation at its 1958 Interim Session to be held December 2-4 in Minneapolis. The first resolution recommends that the Speaker of the A.M.A. House of Delegates and the Chairman of the Board of Trustees jointly appoint a committee to make a survey of the alleged praetiee by a small segment of the medical profession of eharging excessive fees and performing unnecessary procedures and to reeommend means of controlling these praetices which may be employed by eomponent and constituent medieal soeieties. The seeond resolution requests that the A.M.A. sponsor a National Congress on Prepaid Health Insuranee to consider formulating plans for offering sound and eonstantly improved voluntary health insurance. These resolutions are as follows:

REPORT OF COMMITTEE ON NATIONAL POLICY

(Presented to the Council on November 1, 1958)

The Committee on National Poliey was directed by the Council at its meeting on Saturday, Oetober 4, 1958 to consider four matters introduced by W. Wells Baum, Alternate Delegate to the American Medical Association. These matters were as follows:

1. That the Ameriean Medical Association be requested to establish an "ad hoc" committee to study the problem of physicians who eonsistently make what is considered to be unreasonable charges for their serviees particularly for services rendered patients who are known to have the benefits of pre-paid medieal eare insurance.
2. That the Society express to the House of Delegates of the American Medical Assoeiation its views regarding the "closed pancl" system of medical practiee.
3. That the Ameriean Medical Association be requested to sponsor a Joint Council on Prepaid Medical Care Plans.
4. That the Ameriean Medieal Association be requested to exert leadership in the establishment of a loan fund for medical students.

At its meeting on Oetober 15, 1958, the members of the Committee considered it appropriate to submit recommendations to the House of Delegates of the American Medical Association regarding the establishment of an "ad hoe" committee to study the problem of physieians who consistently make what is eonsidered to be unreasonable charges for their services, and regarding the sponsorship of a joint eouncil on prepaid medical care plans. Resolutions on these two subjects are attached to this report and are reeommended for adoption by the Council at this meeting for submission to the House of Delegates of the American Medieal Association at its 1958 interim session being held December 2-4 in Minneapolis.

The Committee, however, was of the opinion that more time was required to eonsider recommendations regarding the Soeiety's attitude toward the "elosed panel" system of medieal praetice. And also that the Soeiety's Delegates to the Ameriean Medical Assoeiation should investigate the loan services whieh are now available to medical students prior to recommending that the American Medieal Association establish a loan fund for medical students.

At its meeting, the Committee also eonsidered the Resolution submitted to the House of Delegates of the Oregon State Medieal Society at its 84th Annual Session held September 3-5, 1958, by T. L. Hyde of The Dalles. This Resolution read as follows:

> NOW THEREFORE BE IT RESOLVED that our representatives to the American Medieal Association be instructed to diligently attempt to persuade the AMA to cooperate with the osteopathie schools in every way possible to improve their edueational standards and effectiveness.

The Committee recalled that the Ameriean Medical Association has already offered to assist osteopathie schools by making an inspeetion and recommendations. This offer, it is our understanding, was not accepted by the osteopathie schools. Sinee the problem of relations between medicine and osteopathy is a subject of constant study by the American Medieal Assoeiation, your Committee is not making any recommendations regarding this Resolution at this partieular time.

Recommendations

Your Committee reeommends that the Resolutions attached to this report be adopted for submission to the House of Delegates of the American Medieal Assoeiation at its Interim Session being held December 2-4, 1958, in Minneapolis.

Respectfully submitted,

A. O. Pitman, M.D., Chairman
Committee on National Poliey

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"Protamide is a valuable remedy in the treatment of herpes zoster. It is helpful in relief of pain and apparently aids in involution of the cutaneous lesions."

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NEW YORK STATE JOURNAL OF MEDICINE

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ITALIAN JOURNAL OF OPHTHALMOLOGY

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"...Protamide is of definite value in the relief of pain in herpes zoster. Further, vesicles and crusts disappear much more rapidly than in untreated cases."

— *William C. Marsh*
U. S. ARMED FORCES MEDICAL JOURNAL

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— *Richard T. Smith*
NEW YORK MEDICINE

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COMMITTEE ON NATIONAL POLICY

Resolution concerning a survey of the alleged practice by a small segment of the medical profession of charging excessive fees and performing of unnecessary procedures.

(Presented to the Council on November 1, 1958)

WHEREAS, it has been frequently asserted that a small segment of the medical profession consistently charge higher fees than circumstances warrant, and with regularity perform an excessive number of diagnostic procedures and, in addition, perform unnecessary surgical procedures, thereby substantially increasing the cost of medical care; and,

WHEREAS, it has also been asserted that these practices are more prevalent when such physicians are caring for patients who are known to have the benefits of prepaid medical, surgical and hospital insurance; and,

WHEREAS, such practices, to the extent that they may exist, have grave moral and ethical implications and, moreover, prevent the efficient and economical administration of prepaid health insurance plans and impede the progress of these plans in developing the most comprehensive health insurance protection possible; and,

WHEREAS, these practices also bring discredit upon the great body of physicians who are constantly striving to foster the most judicious utilization of prepaid medical care insurance benefits; and,

WHEREAS, reliable and accurate information regarding the existence of these practices and the extent to which they exist is essential if corrective procedures are to be undertaken; and,

WHEREAS, the application and enforcement of the Principles of Medical Ethics is primarily the responsibility of component and constituent medical associations; and,

WHEREAS, medical associations do not possess legal authority to utilize disciplinary proceedings to control those physicians whose practices and conduct are inimical to the best interest of the public and the profession generally;

THEREFORE, BE IT RESOLVED: that the Speaker of the House of Delegates and the Chairman of the Board of Trustees be directed to appoint jointly a special committee which shall:

(a) Have a survey conducted to determine whether a segment of the medical profession is consistently charging excessive fees and performing unnecessary procedures especially where prepaid health insurance is involved and the extent to which these practices exist; and,

(b) If such practices are found to exist, recommend procedures, in addition to the application of the Principles of Medical Ethics, which may be employed by component and constituent medical societies to combat these undesirable practices.

Other actions of the Council were as follows:

Adopted the following recommendations of the Committee on Public Health:

1. That a new and simplified means of reporting communicable disease be adopted. The procedure is recommended by the Oregon State Board of Health and is designed to make it easier and simpler for physicians to fulfill their obligations to report communicable diseases to their local health departments. The simplified method was developed by the State Board of Health following the conduct of four pilot studies in four counties in Oregon. The new procedure is a composite of the best features of each study. The physicians of Oregon will be receiving instructions and the necessary reporting forms from their local health departments as soon as they are printed and ready for distribution.

Under this plan, reportable communicable diseases are divided into three categories as follows:

a. Reportable immediately by telephone

b. Reportable by individual case card (EP-50)

c. Reportable only by total number of cases

General practitioners, internists and pediatricians will receive each week a return addressed envelope and the individual case reporting card (EP-50). The physician will simply complete the individual case card for those communicable diseases which are to be reported by individual case and mark on the flap of the return addressed envelope the total number of cases of each disease reportable only by total number of cases, tear off the flap and insert it with any individual case cards which he has completed and insert both in the return envelope and mail. Other physicians will receive supplies as needed. On the reverse side of the individual case card is to be printed the diseases in each category.

2. Approved the preparation and distribution by the Oregon State Board of Health of a wallet size personal immunization record card.

3. Approved the preparation also by the Oregon State Board of Health of an "Immunization Recommendations for the Pre-School Child" pamphlet for distribution by physicians and health departments to the parents of pre-school children.

4. Approved the revision of the "Immunization Manual for Physicians" which was published in 1950.

Approved the following recommendations of the Committee on Public Policy regarding legislative proposals which may be introduced in the 1959 Oregon Legislature:

1. Amendments to the Dental Practice Act to be sponsored by the Oregon State Dental Association which would amend the Dental Practice Act so as to prohibit advertising in any form by practicing dentists.

2. Amendments to the Practical Nurse Act proposed by the Oregon State Nurses Association providing that the membership of the Oregon State Board of Nursing shall be increased to include two licensed practical nurses.

3. A recommendation that the Society adopt a policy of favoring legislation for the registration but not the licensure of paramedical groups.

The Council also authorized the Commitee on State Industrial Affairs to request that the State Industrial Accident Commission place its revised Rules and Regulations which have already been adopted by the Council and the Commission in effect at the earliest possible

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date. The Commitee was also authorized to request that the Commission begin at once to pay allowances for facilities and materials used in minor surgical procedures performed in the physician's office. The Committee was likewise authorized to solicit the views of each component society regarding the adequacy of the present "Maximum Medical Fee Schedule" of the State Industrial Accident Commission.

Some Changes Approved in Standards Set By School Bus Driver Physical Examination

Oregon's school bus driver physical examination program entered the final stages in early November when the State Board of Health reported that more than 1750 examination reports had been approved for licensure, and less than 2.5 per cent of all applicants were turned down for physical reasons.

Still in the hopper for evaluation were an estimated 400 examinations.

Meanwhile the State Medical Society's Committee on Traffic Safety, medical advisory group for the new program, approved some changes in physical standards which cleared the way for licensure of a number of additional applicants.

The Committee approved changes in auditory acuity standards, and in standards applying to hernia.

However, Chairman Otto C. Page of Portland announced that the existing vision requirement which rules out drivers with vision in only one eye is being retained. The Committee discussed possible revision of standards for persons with one eye who have demonstrated driving ability after receiving word that petitions in support of such drivers had been submitted by residents in three school districts. In each instance the driver owned the equipment and held a contract with the school district.

Recognizing that although some financial hardship cases undoubtedly are being created by administration of the program, the Committee members were unanimous in their opinion that current visual standards can be medically supported.

Following are the most recent Committee recommendations to the Board of Health for changes in school bus driver physical standards:

1. That the existing standard on vision be adhered to as reasonable and the minimum that can be medically supported for drivers of transportation vehicles such as school buses. It was again emphasized that the existing standard on visual acuity was already below that of Interstate Commerce Commission requirements for truck drivers and requirements for drivers of over-the-road transportation buses such as Greyhound.
2. That the existing standard on auditory acuity be changed as follows:
   a. Instead of using the present screening requirement of hearing the ordinary spoken voice in each ear at 2 feet, the examining physician use recommended standard test words and determine whether applicant can repeat correctly at least 50 per cent of the test words heard at a 5 *foot distance* in the better ear—*the examiner to be turned away* from the applicant so the latter cannot see the former's lip movements.
   b. If applicant fails to pass above screening test he be required to undergo an audiometer evaluation test and a record of such test (audiograms) be submitted along with the completed physical examination form for review.
   c. Applicants over 65 years of age be re-examined and reconsidered by the reviewing committee at each license renewal period.
   d. Hearing loss for the speech frequency in the better ear, aided or unaided, not to exceed 30 decibels. Periodic examination and evaluation of hearing in each driver having a hearing loss to be mandatory.
   e. If applicant's hearing is corrected by the use of a hearing aid, the individual be required to wear it at all times during operation of a school bus.
   f. Aphonia and severe speech defect be disqualifying.
   g. Individuals subject to sudden, unpredictable attacks of vertigo (Meniere's disease or other vestibular disturbances) be disqualified.
3. The existing standard applying to hernia be changed to read as follows:
   a. Inguinal or femoral hernia be non-acceptable until satisfactorily repaired except where the examining physician certifies that in his opinion the hernia, due to its small size, lack of symptoms or other significant reason, will not interfere with the safe driving of a school bus, the applicant with the defect may be accepted.
4. That no further revisions be made in existing standards for this year since most of the bus driver applicants already have completed their examinations. It is understood that the State Board of Health would like to have Committee re-evaluate the standards during the year and make further recommendations as indicated for application at the next license renewal period.

Laurence Selling Honored at University of Oregon Charter Day Observance

Laurence Selling of Portland was honored by the University of Oregon at its Charter Day Observance held on Wednesday, October 22, in the Ballroom of the Erb Memorial Union Building in Eugene. He was granted an award for distinguished service to the State along with Mr. E. B. McNaughton of Portland, Chairman of the Board of the First National Bank and Mr. William M. Tugman, newspaper publisher and editor of Reedsport, Oregon. Dr. Selling joined the faculty of the University of Oregon Medical School in 1912 and became Head of the Department of Medicine and the Division of Neurology in 1928. He retired as a member of the faculty in 1947 with the rank of emeritus professor of medicine. A $200,000 research scholarship fund has been established in his name in honor of his contributions to medicine.

Dr. Selling's interest in education was not limited to the field of medicine. For a period of 18 years he served as a member of the Board of Regents of Reed College and played a major role in the development of that institution.

The Society is highly honored to have one of its esteemed members receive this high recognition.

There Will Be A "Doctor In The House" Edwin R. Durno Wins State Senate Seat

With the election of Edwin R. Durno of Medford to the Senate from Jackson County, the medical profession in Oregon will be represented again in the Oregon State Legislature.

Dr. Durno will bring to his new responsibility a broad background in the affairs of the profession in this State. He is currently a member of the Oregon State Board of Medical Examiners, an agency on which he has served since 1947. In this capacity, he has given tirelessly of his time to assure that Oregon has the services of the most highly qualified physicians.

Dr. Durno was one of the original incorporators of Oregon Physicians' Service and is a past-president of both the Jackson County and Southern Oregon Medical societies. He was one of the leaders in the promotion of the new Rogue Valley Memorial Hospital in Medford and many other civic improvement projects.

As a member of the University of Oregon basketball team, he was the first Pacific Coast Conference player to be named All-American. Following graduation from Oregon, Dr. Durno remained as an assistant in physical education. Later in 1922, he taught physical education and coached football and basketball at Medford High School.

Dr. Durno completed his medical education at Harvard University in 1927, and, after intern and residency training at the Massachusetts General Hospital, returned to Medford to practice in 1930. During World War II he served three years with the Army Medical Corps, two of which were in the European theatre in three campaigns. He received the purple heart at Liege, Belgium, in December of 1944. He held the rank of major when discharged.

In addition to the candidacy of Dr. Durno, the Society watched with great interest the strong race which Mrs. Frank E. Fowler of Astoria made for the position of Representative from Clatsop County. Mrs. Fowler, who will be remembered as the Executive Secretary and Legal Advisor to the Oregon State Board of Medical Examiners from 1941 to 1948, was admirably qualified to serve in the Legislature and the Society was hopeful that she would be successful. During the time that Mrs. Fowler was affiliated with The Oregon State Board of Medical Examiners, she served as the Society's Legislative Representative at the 1945 and 1947 sessions. She is currently the Legislative Chairman of the Society's Woman's Auxiliary.

In reflecting upon Dr. Durno's election to the Senate, it is interesting to note that the medical profession has been represented in the Oregon State Legislature continuously since the 1931 session except during the sessions in 1949 and 1957. F. H. Dammasch of Portland, who served in the House of Representatives for six regular and one special session, was a candidate for the 1949 Legislature but was not elected. Dr. Dammasch died in December of 1955 and there were no candidates for either the House of Representatives or the Senate from the medical profession for the 1957 Legislature.

According to the information at the disposal of the Society, the first doctor of medicine to serve in the Oregon State Legislature was Andrew C. Smith of Portland who was a member of the Senate during the 1901 and 1903 sessions. Dr. Smith did not seek office again until 1914 when he was a successful candidate for the House of Representatives and served during 1915.

For the next 16 years the Oregon State Legislative sessions were without a "doctor in the house." In 1931, Joel C. Booth of Lebanon was a successful candidate for the Senate from Linn County and served for one full term in the 1931 and 1933 sessions. It is not certain whether Dr. Booth sought reelection but the records indicate that he did not return to the Legislature until 1939. Beginning in that year, he was a member of the Senate of the next four Legislatures.

It is also interesting to note that there were five physicians in the Legislature in 1937 and 1941; four in 1939 and 1943; three in 1933 and 1935; two in 1945 and one physician in the 1931, 1947, 1951, 1953 and 1955 Legislatures.

Following Dr. Booth or serving concurrently with him during the subsequent sessions were these physicians:

James A. Best of Pendleton who was a member of the House of Representatives in 1933 and later was a member of the Senate continuously from 1935 through 1943.

F. H. Dammasch of Portland was a member of the House of Representatives first in 1933 and then returned 10 years later for the 1943 session. He was subsequently a member of the House of Representatives during the sessions of 1947, 1951, 1953, and 1955.

C. T. Hockett of Enterprise was a member of the House of Representatives for four consecutive sessions beginning in 1935.

J. F. Hosch of Bend served in the House of Representatives concurrently with Dr. Hockett.

H. R. Kauffman of Toledo was a member of the Senate for one term and served during the 1941 and 1943 sessions.

Archie K. Higgs of Portland and *A. Orville Waller* of Eugene were both members of the House of Representatives during the 1937 session.

William A. Moser of Grants Pass was a member of the Senate of the 1945 Legislature.

In 1948, Regner W. Kullberg of Astoria was a candidate for the House of Representatives from Clatsop County. He was, however, not elected. Likewise, in 1948 William J. Weese of Ontario was a candidate for the Senate but was defeated by Mr. Elmo Smith, who as it will be remembered became President of the Senate, an office he held at the time of the death of Governor Paul Patterson, at which time, of course, Senator Smith was elevated to the Governorship.

The Society looks with justifiable pride upon its members who have given this public service to our State.

Eugene Surgical Society Hears Two Medical Educators

Guest speakers at the fourth annual Eugene Surgical Society meeting October 17 and 18 were John A. Gius, professor and chief of the department of surgery of University Hospitals at the State University of Iowa, and Abou D. Pollack, assistant professor of pathology at Johns Hopkins University School of Medicine. Dr. Gius presented two papers and Dr. Pollack conducted the clinical pathologic conference on the second day of the meeting.

Papers were also read by three Eugene physicians. C. D. Donohue spoke on urology; Julius H. Hessel discussed vascular emergencies; and James Brooke reported on European trends in the surgery of arthritis.

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[illegible]mycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride . . . . . 250 mg.
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[illegible] Capsules
[illegible] adult dosage is 2 capsules q.i.d.

[illegible] KM Granules
[illegible] treatment of [illegible] infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to [illegible] pounds of body weight per day, administered [illegible] equal doses. Severe or prolonged infections require higher dosage. Dosage for adults is 3 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

Former AMA Trustee R. A. Fenton Dies

Death early November 2 ended the long and distinguished career of Dr. Ralph Albert Fenton of Portland, prominent eye, ear, nose and throat specialist and former Trustee of the American Medical Association.

Dr. Fenton served as Trustee to the AMA from 1936 to 1945. Prior to his election to the high office, he participated as an Oregon Delegate to the AMA Section on Laryngology, Rhinology and Otology.

During his medical career which dated back to 1906, Dr. Fenton was honored many times for his research and writings.

Dr. Fenton was born in Lafayette, Oregon, on Nov. 5, 1880, son of the late Judge W. D. Fenton. He was graduated from old Central Grammar School in Portland in 1894 and later from Portland Academy. He studied two years at the University of California and was graduated from the University of Oregon in 1903. He obtained his medical degree from Northwestern University Medical School in 1906, and entered practice in Portland a year later after completing an internship at the Illinois Eye and Ear Infirmary in Chicago.

Dr. Fenton was Professor of the Department of Otolaryngology at the University of Oregon Medical School from 1909-46 when he was named Emeritus Professor.

During World War I Dr. Fenton went overseas as a Major in Base Hospital 46, serving in many of the same sectors of France as the famed 91st Division. He also served in the Army of Occupation in Germany and rose to the rank of Colonel in the Army Reserves.

In addition to his many professional and medical society activities, Dr. Fenton also devoted considerable time to volunteer service as a member of the Advisory Committee to the Sommer Memorial Lecture Fund.

Dr. Fenton's outstanding work was recognized in 1928 when he was presented the Casselberry prize of the American Laryngological Association, in 1943 when he received the De Roaldes medal and again in 1943 when he received an honorary doctor of science degree from the University of Oregon.

Dr. Fenton was prominent in many professional organizations. He was a past-president of the Oregon Academy of Ophthalmology and Otolaryngology; president in 1931 of the Portland Academy of Medicine; a councilor from 1926-1930 of the American Laryngological, Rhinological and Otological Society; a director in 1927 of the American Board of Otolaryngology; vice-president in 1927 and secretary in 1916 and president in 1942 of the Pacific Ophthalmology and Otolaryngology; vice-president in 1927 of the American Laryngological Association, and secretary in 1916 and President in 1942 of the Pacific Coast Oto-Ophthalmological Society.

In addition to his affiliation with the Oregon State and Multnomah County Medical Societies, Dr. Fenton also was a Fellow in the American College of Physicians and a member of the American Otological Society, and was U. S. Delegate to the International Congress on Military Medicine and Pharmacy at The Hague in 1931.

Dr. Fenton also was a student of languages and was able to speak in seven tongues, including Siamese and Chinook. His keen interest in a wide variety of activities outside the medical world ranged from gardening to many years of service on the Board of Directors of the Portland Library Association.

Dr. Fenton is survived by the widow, Mabel Copley-Smith, whom he wed in 1908. Memorial services were held at the First Unitarian Church in Portland.

C. O. Wainscott of Pendleton Passes

Dr. C. O. Wainscott of Pendleton died unexpectedly of a heart attack on October 25, after killing a deer in the Lehman Springs vicinity.

Dr. Wainscott, native of Grant County where he was born in 1885, was the oldest practicing physician in the point of service in Umatilla County when he retired last March after 46 years of practice. He graduated from the Medical Department of Willamette University in 1912.

He established his practice in Hermiston that year and remained there until called into the United States Army Medical Corps during World War I. He spent two years in the American Expeditionary forces serving in France. He held the rank of Captain at the time of his release from service.

Following World War I, he resumed his practice in Hermiston where he practiced for about a year before moving his practice to Pendleton.

Dr. Wainscott was active in many phases of community life as well as holding a prominent place in medical circles in Eastern Oregon for many years. He was a member of the Umatilla-Morrow County Medical Society, the Eastern Oregon District Medical Society, the Oregon State Medical Society and the American Medical Association. He was honored by the Oregon State Medical Society at the time of his retirement by election to life membership.

OSMS To Have Centennial Exhibits

The Oregon State Medical Society will be represented by one and possibly two exhibits when the Oregon Centennial Exposition opens next June in Portland.

At its last meeting the Committee on Public Relations voted to arrange for one large exhibit of general medical interest, providing space can be donated for this purpose.

Chairman Charles E. Littlehales explained the Committee did not feel that sufficient funds would be available to sponsor a suitable exhibit if the space must be purchased.

Another Centennial exhibit is being prepared by the Committee on Oregon Medical History under chairmanship of E. G. Chuinard. The exhibit will depict the colorful era of pioneer medicine in the Oregon territory as seen in the careers of famous early day physicians.

The medical history exhibit was authorized by the House of Delegates at its meeting in Portland during September.

Lane County Medical Society

At the November meeting of Lane County Medical Society, Emmett E. Woodward of Eugene discussed Cervical Cytological Cancer Detection. Also included on the program was the showing of the American Cancer Society Film, Time and Two Women, following which there was a discussion period. It was announced during the meeting that the county society would again cosponsor an Athletic Injuries Course with the University of Oregon next June.

Portland Physician Named to High Post

At the interim meeting of the American Institute of Ultrasonics in Medicine held in Philadelphia August 23, Arthur C. Jones of Portland was elected to the Executive Board for 1959-1960.



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the sneeze

the cough

the aches

the fever

in the common cold

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the only such preparation to contain penicillin V to curb bacterial complications . . .

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Allergy Workshop Held in Portland

Oregon Society of Allergy and Allergy Foundation of America recently co-sponsored a workshop in allergy in the Medical Dental Building auditorium, Portland. Oregon general practitioners as well as specialists in allergy attended the program which included the presentation of case histories to demonstrate clinical evaluation and management of allergy.

UOMS Professors Co-Author Textbook

Robert A. Wise, associate clinical professor of surgery, and Harvey W. Baker, clinical instructor in surgery, have co-authored the illustrated textbook, Surgery of the Head and Neck.

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STARTING DATES—EARLY 1959

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Surgery of the Colon & Rectum, One Week, March 2, April 6.
Fractures & Traumatic Surgery, Two Weeks, March 9.
Treatment of Varicose Veins, Two Days, February 2, March 2.
American Board Review Course, Two Weeks, April 6.
Gallbladder Surgery, Three Days, March 30.
Surgery of Hernia, Three Days, April 2.
Blood Vessel Surgery, One Week, March 2.

GYNECOLOGY & OBSTERICS—
Office & Operative Gynecology, Two Weeks, February 9, March 16.
Vaginal Approach to Pelvic Surgery, One Week, February 2, March 9.
General & Surgical Obstetrics, Two Weeks, February 23, March 30.

MEDICINE—
Electrocardiography, Two Week Basic Course, March 16.
Gastroscopy & Gastroenterology, Two Weeks, March 2.
American Board Review Course, One Week, April 20.

UROLOGY—Two-Week Intensive Course, March 30.
Ten Day Practical Course in Cystoscopy, by Appointment.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, March 2, April 27.
Clinical Uses of Radioisotopes, Two Weeks, May 4.

TEACHING FACULTY—ATTENDING STAFF OF COOK COUNTY HOSPITAL

ADDRESS: Registrar, 707 South Wood Street, Chicago 12, Ill.

A. J. Kreft Retires as President of Izaak Walton League of Oregon

For the past two years the Izaak Walton League of Oregon has prospered under the dynamic leadership of A. J. Kreft of Portland.

Dr. Kreft, a member of the Council of the Oregon State Medical Society and past Chairman of the Committee on Public Relations, has brought recognition to the entire profession through his volunteer service as president of the well-known organization of sportsmen dedicated to the preservation of natural resources.

The League's publication, *Outdoor Oregon*, editorialized on its retiring president as follows:

> So-Long Doc . . .
>
> That perspicacious physician, A. J. Kreft . . . more familiarly known as "Doc" to his legion of friends in and out of the League throughout the State . . . is laying his splintered gavel on the rostrum and oiling up his spinning reel and shotgun for some badly needed relaxation come November 29, when he retires as Oregon Division President.
>
> This writer, like many other people, has been pressed, urged and cajoled by the good doctor to do his share for IWLA lo these many times during the past biennium. Dr. Kreft is a dedicated man, responsible to the ideals of the organization he has served so well. Yet with this dedication he has always allowed himself exposure to all sides of any question.
>
> During his two year term, the League has prospered in many ways. It has grown in stature in the eyes of outsiders and most of all he has created a climate of enthusiasm and awareness of obligation within the many state chapters.
>
> Conservation programs in Oregon are richer through Dr. Kreft's two years of devoted service as state president. As one, all Waltonians, wish him well.

UOMS Receives $1 Million in Grants

Since the beginning of the research year on May 1, the University of Oregon Medical School has received more than $1,316,000 in gifts, grants and equipment. Largest of the research grants is $300,131 from the National Institute of Neurological Diseases and Blindness of the U. S. Public Health Service for a study of the problems of pregnancy and their relationship to inborn defects in children.

Other large PHS grants include: a half million dollars for training and research in the division of experimental medicine; $40,127 for work on the partial standardization of the psychiatric interview; $35,000 for multiple sclerosis research; $26,504 to Archie R. Tunturi, assistant professor of anatomy; $24,863 to John M. Brookhart, head of the department of physiology; $23,979 to Donald E. Pickering, assistant professor of pediatrics; and $20,000 to Charles T. Dotter, head of the department of radiology.

Grants from other sources are: $27,000 from the National Science Foundation for a study of the biochemistry of natural melanins; $20,000 from the Atomic Energy Commission for a study of the use of radioactive sodium in cerebral edema, brain tumors, and focal lesions, and for a study involving radioactive phosphorus; $10,000 from the McDermott Foundation of Dallas, Texas, to support a constitutional medicine project; and $9,200 from the U.S. Air Force for research on cardiovascular reactions of Alaskan Eskimos.



HERMAN A. DICKEL, M.D.

President's Page

The opportunity given to the President of a State Medical Society to visit the many county and component medical societies throughout the State has deeply impresed me especially in one respect.

I had always thought that physicians because of rather similar professional education and interests would show singularity in their sense of responsibility to one another. I thought that "medicine" contains men and women who think, feel, act, behave and deal with one another on a common ground, not alone because of the education and interest they share, but because they are professional people bonded together by Hippocratic Oath, professional ethics, licensing obligations and respect for dignity of the profession.

I am duly impressed to find that such is not always the case, at least not in our State.

Admittedly I may have been a bit naive, and perhaps (for special reasons) I am stretching a point to emphasize an existing condition.

I am talking about the matter of *"Neglect"!* I'm talking about the manner in which intellectually well endowed men and women, academically well trained for medicine, professionally well prepared to practice their art and science anywhere, can so frequently neglect their deep moral obligations to help fellow physicians resolve the many problems they face in the day-to-day practice of medicine.

Oh yes, we offer assistance in good will by referring patients; we attend scientific lectures presented by our colleagues; we exchange greetings and other words at staff meetings; we socialize and sometimes "bend a few."

But how often do we get together to compare notes on the problems in the practice of medicine at the only practical time when such things can be brought up, discussed and solved—the regular meetings of our component medical societies?

Some component societies do a magnificent job. In these areas there exists fine spirit of cooperation and friendliness. Patients and the community speak well of these doctors.

In other areas, especially in larger districts, such is not the case. Many fine physicians completely ignore or neglect their fellow physicians' plight by staying away from county society meetings, or by publicly expressing opinions which are harmful in the long run to other physicians as well as themselves. In these areas, even though the individual doctor practices good medicine, medical organization is not so respected. No one person suffers then—we all do.

There is something, then, we can all do. We can make a solemn pledge, not to ourselves but to each of our colleagues, to treat him with greater honor and respect. We can promise to help where it means the most, at the regular business meetings of the medical society where the deeply professional aspects of medical practice are opened, looked at and solutions explored and found.

Do not neglect your professional friends. Attend your local society meetings and *share* the burden of helping to solve some of these intricate problems.

Herman A. Dickel, M.D.

President



"Much better– thank you, doctor"

Proven in research

1. Highest tetracycline serum levels
2. Most consistently elevated serum levels
3. Safe, physiologic potentiation (with a natural human metabolite)

And now in practice

4. More rapid clinical response
5. Unexcelled toleration

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GLUCOSAMINE-POTENTIATED TETRACYCLINE

CAPSULES
(black and white)
250 mg., 125 mg.
(for pediatric or long-term therapy)

ORAL SUSPENSION
(orange-flavored)
125 mg. per tsp. (5 cc.)
2 oz. bottle

NEW! PEDIATRIC DROPS
(orange-flavored) 5 mg. per drop, calibrated dropper,
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glucosamine-potentiated tetracycline with nystatin

Antibacterial plus added protection against monilial super-infection

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glucosamine-potentiated tetracycline-analgesic-antihistamine compound

For relief of symptoms and malaise of the common cold and prevention of secondary complications

CAPSULES (black and orange)—each capsule contains: Cosa-Tetracyn 125 mg.; phenacetin 120 mg.; caffeine 30 mg.; salicylamide 150 mg.; buclizine HCl 15 mg.

REFERENCES: 1. Carlozzi, M.: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and leukemia, Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Antibiotic Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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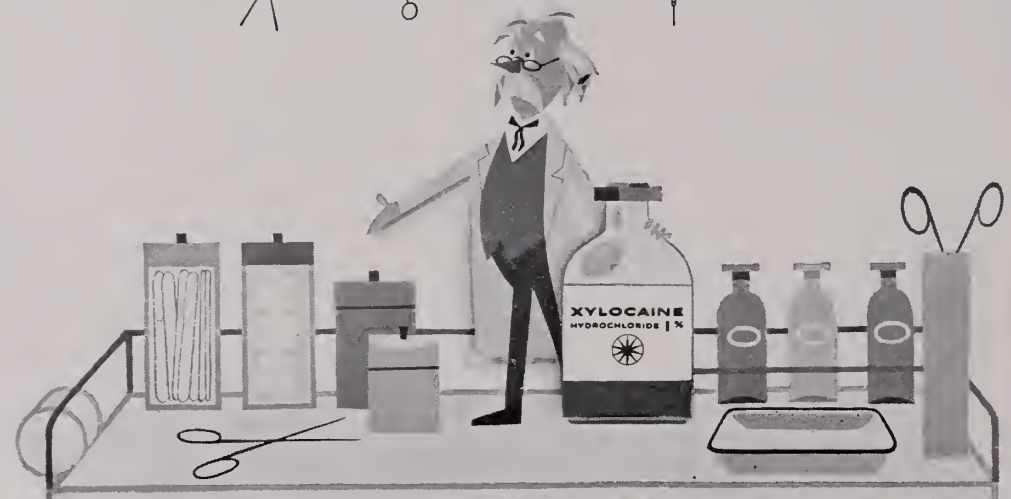
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Washington

WASHINGTON STATE
MEDICAL ASSOCIATION
1309 Seventh Avenue
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ANNUAL MEETING
Seattle
September 13-16, 1959

President, Emmett L. Calhaun, M.D., Aberdeen Secretary, Wilbur Watsan, M.D., Seattle Executive Secretary, Mr. R. W. Neill, Seattle

State Health Dept. and USPHS Establish Shellfish-Sanitation Research Lab

The first Pacific Coast shellfish-sanitation research laboratory was opened November 14 on Burley Lagoon at Purdy, Wash. The facility is a joint venture of the Washington State Department of Health and the United States Department of Health, Education and Welfare, Public Health Service.

A $40,000 appropriation by the 1957 legislature has enabled the state to lease the location, construct the facilities and maintain the buildings. As its share, the Public Health Service is staffing the laboratory with a four-man team of research scientists from its Sanitary Engineering Service. The scientists, who will man the laboratory for a minimum five-year period, will conduct experiments on the sanitary bacteriology of harvesting, processing and marketing of commercial species of shellfish in the area.

The research team hopes to present evidence for the establishment of more valid sanitation control standards pertaining to Pacific Coast oysters and clams. Results of the studies are expected to be helpful to the shellfish industry and the entire Pacific Northwest. The findings and progress of the team will be announced in interim technical reports which will be distributed by the Public Health Service.

Three Elected to State Legislature

Returns of the November elections show that two physicians and a physician's wife will be returned to the State Legislature when the 36th session convenes in January for 60 days. A. O. Adams (R) of Spokane will serve his fourth term as a member of the House of Representatives; James L. McFadden (D) of Port Angeles, who was chairman of the House Committee on Medicine, Dentistry and Drugs during the last session, will return for his third term; and Mrs. John W. Epton (D), wife of a Spokane physician, will serve her second term in the House.

Film Wins International Science Prize

The film, "Ovulation and Egg Transport in the Rat," produced by R. J. Blandau and the University of Washington School of Medicine, has won a top prize in the third International Review of Scientific Motion Pictures in Padua, Italy. Dr. Blandau's movie was awarded a Silxer Ox Skull in the biological-science division of the competition. A Japanese film, "The World of Microbes," won the first prize, a Golden Ox Skull. Dr. Blandau is professor of anatomy and assistant dean of the University School of Medicine. A total of 63 movies submited by 18 countries were entered in the annual event.



YEAR'S WORK BEGINS—The Executive Committee and Board of Trustees of the Washington State Medical Association for 1958-59 began their year's work with meetings in Seattle during October. Top photo shows session of Executive Committee, whose members are, from left: Frederick A. Tucker, Seattle, president-elect; Emmett L. Calhoun, Aberdeen, president; Milo T. Harris, Spokane, past-president and Committee chairman, and Wilbur E. Watson, Seattle, secretary-treasurer. In lower photo, President Calhoun welcomes new members of Board of Trustees, from left: William H. Hardy, Aberdeen; John R. Hogness, Seattle; Dr. Calhoun; Gayton S. Bailey, Seattle, and Robert B. Hunter, Sedro Woolley.

Washington Internists Elect Officers

At their recent annual meeting in Seattle, members of the Washington State Society of Internal Medicine elected Robert W. Simpson, Seattle, to the presidency for 1959. G. Marshall Whitacre of Tacoma assumed the presidency for the coming year succeeding John Skinner of Yakima. Warren Spickard of Seattle was re-elected to the post of secretary-treasurer.

Others named to high offices include: William Watts of Seattle, Harold Gunderson of Everett and Joseph Delaney of Spokane, councilmen; Merritt Stiles of Spokane and Dr. Skinner, delegates; and Fred Radloff of Wenatchee and Dr. Delaney, alternate delegates. Holdover councilmen are Heyes Peterson of Vancouver, Dr. Radloff and Robert Lane of Tacoma.

Mr. James Meehan, district representative of the Equitable Life Assurance Society of the United States, addressed the meeting of more than 100 Washington State internists.

When the bronchial tree has too much "bark"

make cough MORE PRODUCTIVE, LESS DESTRUCTIVE

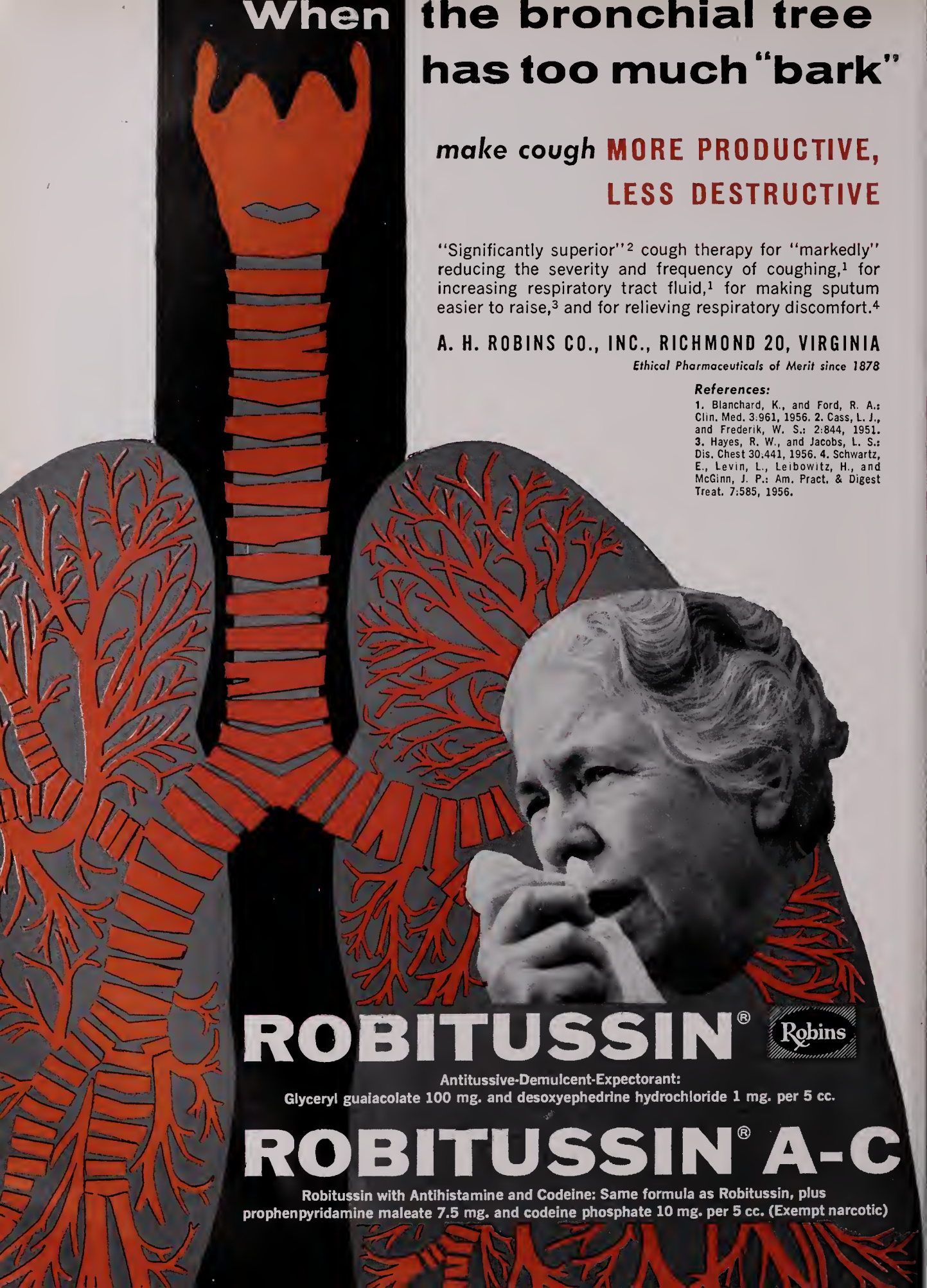
"Significantly superior"[2] cough therapy for "markedly" reducing the severity and frequency of coughing,[1] for increasing respiratory tract fluid,[1] for making sputum easier to raise,[3] and for relieving respiratory discomfort.[4]

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References:

1. Blanchard, K., and Ford, R. A.: Clin. Med. 3:961, 1956. 2. Cass, L. J., and Frederik, W. S.: 2:844, 1951. 3. Hayes, R. W., and Jacobs, L. S.: Dis. Chest 30:441, 1956. 4. Schwartz, E., Levin, L., Leibowitz, H., and McGinn, J. P.: Am. Pract. & Digest Treat. 7:585, 1956.



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WSMA President Visits County Societies—*Top row, from left; Okanogan County Medical Society meeting*: Louis S. Dewey, Okanogan, member of WSMA Board of Trustees; WSMA President Emmett Calhoun of Aberdeen; Mr. Richard Peary, Republic, president of Ferry County Bar Association; Harold Lamberton, Brewster, president of Okanogan County Medical Society. *Bottom row, from left, Grant County Medical Society meeting*: Wayne L. Piper of Ephrata, secretary of Grant County Medical Society; Dr. Calhoun; Ronald M. Gill, Moses Lake, president of the county society.

President Calhoun Speaks on Medical Care For the Aged at Visits to County Societies

Beginning his visits to county medical societies, President Emmett L. Calhoun of the Washington State Medical Association, recently appeared before medical groups in Ephrata, Wenatchee and Okanogan. He has other engagements to attend meetings of societies in Walla Walla, Skagit, King, Yakima, Whatcom and Clark Counties. Tentative dates are scheduled for Lewis and Cowlitz County Societies.

Dr. Calhoun declared medical care for the aging population continues to be a serious problem facing the profession. "The Forand Bill, which would provide medical and hospital care through the Social Security system, failed in Congress this year, but the bill is by no means dead. The medical profession must give serious and immediate attention to this problem, or the government will take over its solution and, perhaps, in ways we will not like.

"If the medical profession does not soon come up with some answers to the problem of the care of the aged, we will be faced with a real crisis, because the government will force an answer right down our throats."

Dr. Calhoun said physicians are handicapped by two important things, lack of communications and lack of unity. "For instance," he stated, "we have in this state a system of caring for the indigent—the welfare medical program handled by doctors themselves—that is without equal in the United States. Yet few doctors outside of this state know about it." He said the American Medical Association has recognized the lack of communications, and has begun publication of a bi-weekly newspaper to improve this situation across the country.

As to the problem of unity, Dr. Calhoun declared: "It seems to take some great crisis to get the medical profession to act with even a semblance of unity."

Noting that the State Legislature will convene in January, Dr. Calhoun said there will be many serious legislative proposals affecting the profession. It is vitally important, he stated, that physicians get to know their state and national representatives, and inform them of their views.

Vitally interested in all phases of prepaid medical plans in Washington State, Dr. Calhoun sought information and counsel from physicians wherever time permitted. He met with the Chelan County Bureau Board of Trustees in Wenatchee.

In Okanogan, the Washington State Medical Association President appeared before a joint meeting of the Bar and Medical professions. To them, he outlined the Code of Cooperation adopted by the National Bar Association and the American Medical Association, explained the possibilities of this sort of cooperation on county and state levels, and urged consideration of this type of program by both groups.

Dr. and Mrs. Calhoun attended the Western Conference on Prepaid Medical Plans in San Francisco.

Bentley Colcock of Boston To Speak At Seattle Surgical Society Meeting

Guest speaker at the 1959 Annual Meeting of the Seattle Surgical Society will be Bentley P. Colcock, staff surgeon at the Lahey Clinic in Boston. During the two-day session, which will be held January 30 and 31 in the Olympic Hotel, Dr. Colcock will discuss the papers presented and in addition will read three papers. He will talk on carcinoma of the thyroid, biliary tract surgery and carcinoma of the colon. Dr. Colcock, who is a fellow of the American College of Surgeons, specializes in surgery of the thyroid and abdomen.



BENTLEY P. COLCOCK, M.D.

Dr. Colcock received his medical degree in 1933 from the University of Pennsylvania School of Medicine. He took his internship and residency training in surgery at the Philadelphia General Hospital. From 1936 to 1938 he was associated with the Lahey Clinic in Boston as a fellow in surgery. Following this he was named to his present position as staff surgeon at the Clinic. During World War II, he was a chief general surgeon in the Army Medical Corps, serving in Africa and Italy. He was discharged with the rank of Lieutenant Colonel.

Program for the Surgical Society's annual meeting has been arranged under the chairmanship of J. Thomas Payne. Wilbur Watson is president of the group.

SEATTLE SURGICAL SOCIETY
Annual Meeting
January 30-31, 1959
Olympic Hotel, Seattle, Washington

FRIDAY, JANUARY 30, 1959

Morning

9:30 a.m.	Welcome by the President—Wilbur E. Watson
9:45 a.m.	Evaluation of Ombredanne Orchidopexy—Alexander H. Bill
9:55 a.m.	Management of Bleeding Esophageal Varices—Fred J. Jarvis
10:05 a.m.	Merits of the LaRoque (Intra-Abdominal) Approach to Complicated Hernias—John A. Duncan
10:15 a.m.	Experiences with Carcinoma of the Thyroid at Providence Hospital—Albert J. Bowles
10:25 a.m.	Intermission
10:40 a.m.	Review of Carcinoma of the Lung—Lawrence B. Kiriluk
10:50 a.m.	Neuroblastoma—Alfred Sheridan

Satisfied with the usual cough remedies?



—do you find that the local soothing effect of cough syrups is not enough?

—are you concerned about the side effects of codeine?

—do you find that many remedies decrease cough productivity?

—do you have patients who do not cooperate fully because of cumbersome forms of issue and too frequent dosage?

CIBA
SUMMIT, N. J.

11:00 a.m. Diverticulitis at Swedish Hospital—Edward B. Speir
11:10 a.m. The Fate of the Sessile Polyp—Arthur E. Lewis
11:20 a.m. Discussion of Papers—Bentley P. Colcock

Afternoon

2:00 p.m. The Diagnosis and Treatment of Carcinoma of the Thyroid—Bentley P. Colcock
2:50 p.m. Intermission
3:05 p.m. Results to Date in Open Heart Surgery at the University of Washington—K. A. Merendino, Loren Winterscheid, R. Blumberg, Roy Vetto, and David Dillard
3:20 p.m. Common Duct Exploration Without Operative Cholangiography—Allan W. Lobb
3:30 p.m. Hemobilia—I. J. Gustafson, J. T. Payne
3:40 p.m. Surgical Aspects of Jaundice—Bliss L. Finlayson
3:50 p.m. Pancreatitis; Surgical Approaches—Lucius D. Hill and Caleb S. Stone, Jr.
4:00 p.m. Duplications of the Gastrointestinal Tract—Frank C. Henry
4:10 p.m. Discussion of Papers—Bentley P. Colcock

Evening

6:00 p.m. Social Hour
7:00 p.m. Banquet
Problems in Biliary Tract Surgery—Bentley P. Colcock

SATURDAY, JANUARY 31, 1959

Morning

8:00 a.m. Breakfast
8:45 a.m. Panel—Ulcerative Colitis
Moderator: J. T. Payne
Panel Members: Bentley P. Colcock
Sherwood B. Fein
William B. McMahon
9:45 a.m. Intermission and Adjournment to Olympic Bowl
10:00 a.m. Fracture Healing in Children—Louis H. Edmunds
10:10 a.m. Coccyodynia—Ernest M. Burgess
10:20 a.m. Current Views on the Metastatic Spread of Carcinoma of the Colon—Matthew H. Evoy
10:30 a.m. Some Recent Advances in the Treatment of Prostatic Carcinoma—O. A. Nelson
10:40 a.m. Repair of Third Degree Obstetrical Lacerations—Edwin T. MacCamy
10:50 a.m. Discussion of Papers
11:00 a.m. Intermission
11:15 a.m. The Mucosal Polyp and Carcinoma of the Colon—Bentley P. Colcock

Honorary Membership Conferred

William L. Ross, Jr., of Yakima has been elected an honorary member of the Yakima County Medical Society in recognition of his long and distinguished career. The honor was conferred by Fred Burrows, president of the society. Dr. Ross has been in active medical practice for 42 years, with most of that time spent in Yakima. He has held many offices in his county and state medical groups and is a past-president of the state chapter of the American College of Surgeons and of the Western Section of the American Urology Association.

If not... here's why you should try new Tessalon Perles



- controls cough by dual action—in the chest as well as at cough centers of the brain.
- 2½ times as effective as codeine[1] without the side effects of codeine.
- controls cough frequency without decreasing productivity or expectoration.
- Perles offer convenient, precise dosage and relief for 3 to 8 hours.

AVERAGE ADULT DOSAGE: 100 mg. t.i.d.
In refractory cough, up to 6 perles (600 mg.) a day may be given.
AVERAGE DOSAGE FOR CHILDREN UNDER 10:
One Pediatric Perle (50 mg.) t.i.d.
SUPPLIED: TESSALON *Perles*, 100 mg. (yellow).
Pediatric Perles, 50 mg. (red).
Pediatric Perles available Oct. 1, 1958.

1. Shane, S. J., Krzyski, T. K., and Copp, S. E.: Canad. M.A.J. 77:600 (Sept. 15) 1957.

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Nutritional authorities generally recommend that fats should provide no more than 30% of the total calories. In cholesterol-lowering diets from one-third to one-half of these fats should be unsaturated, such as in Mazola Corn Oil.

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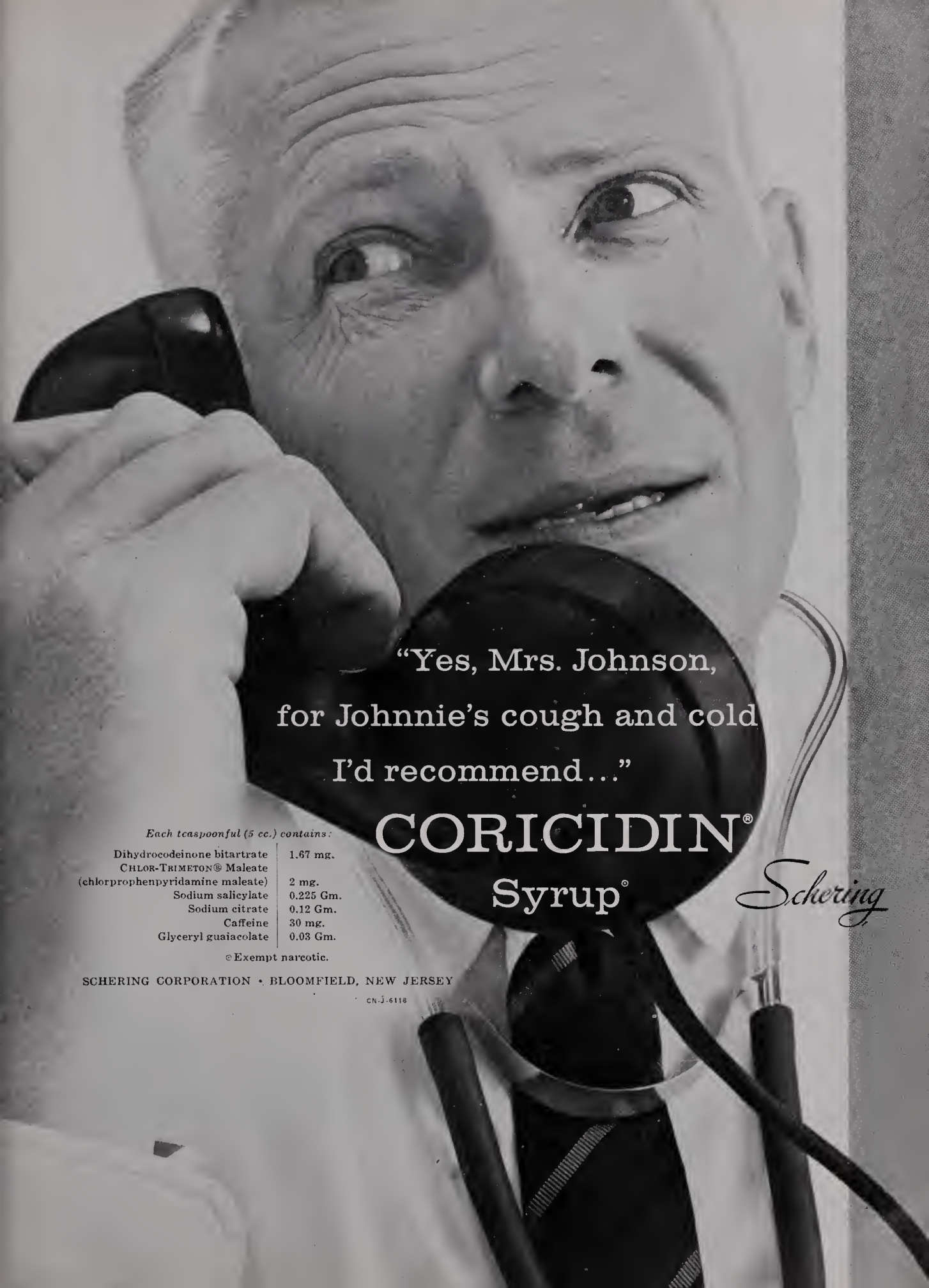
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Sitosterols	130 mg.
Natural Tocopherols	15 mg.

TYPICAL AMOUNTS PER DIET

For a 3600 calorie diet	3 tablespoonsful
For a 3000 calorie diet	2.5 tablespoonsful
For a 2000 calorie diet	1.5 tablespoonsful

*Reg. U. S. Pat. Off.



Each teaspoonful (5 cc.) contains:

Dihydrocodeinone bitartrate	1.67 mg.
CHLOR-TRIMETON® Maleate (chlorprophenpyridamine maleate)	2 mg.
Sodium salicylate	0.225 Gm.
Sodium citrate	0.12 Gm.
Caffeine	30 mg.
Glyceryl guaiacolate	0.03 Gm.

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J. G. Matthews of Spokane Honored On His 77th Birthday by Hospital Guild

The 77th birthday anniversary of St. Luke's Hospital's oldest active staff member, J. G. Matthews, was celebrated by a gala, surprise party given by the Doctors Matthews guild of the hospital. In addition to guild members and hospital officials and personnel, Dr. Matthews' wife and their daughter, Mrs. Danforth M. Wallace of Indiana, attended the event.

Dr. Matthews is one of the oldest active physicians in Spokane, serving on all three of the local hospitals. He entered the University of Maryland School of Medicine and College of Physicians and Surgeons in 1901, the last year the institution could accept a man without a high school education, and finished in the upper fourth of his class. Following his graduation in 1905, Dr. Matthews practiced in a primitive coal-mining town in western Maryland.

Dr. Matthews moved to Spokane in 1908 and was associated with his brother, A. A. Matthews, until the latter's death in 1940. A. T. Perry has been his associate for the last 10 years.

In 1910 Dr. Matthews began three years of specialty training in surgery at Johns Hopkins Hospital and he visited the Mayo Clinic one week a year while the Mayo brothers were alive. He served in the medical corps with evacuation hospitals during World War I.

Seattle Gynecological Society

Those named to head the Seattle Gynecological Society for the coming year are L. Bruce Donaldson, president, and Robert N. Rutherford, secretary-treasurer. The election of officers was held at the September 17 meeting at the Washington Athletic Club. It has been requested that all notices be directed to Dr. Rutherford at 707 Broadway, Seattle 22, Wash.

King County Medical Service Elects

Eugene F. McElmeel has been elected president of the King County Medical Service Corporation to succeed Roland D. Pinkham. Vice-president is Albert F. Lee and secretary-treasurer is Robert A. Pommerening. Those named trustees are: Robert C. Manchester, Gordon A. Dodds, Frank C. Henry and John R. Wilton. All are Seattle physicians.

Obituaries

Dr. William Huey, 45, died October 25 in a Seattle hospital of a myocardial infarction and arteriosclerotic heart disease. Dr. Huey received his medical degree in 1939 from the University of Edinburgh Faculty of Medicine, Scotland. He had practiced in Calgary, Alta., 10 years before moving to Seattle three years ago. During World War II, he served as a flight surgeon with the Royal Air Force.

Dr. Park Weed Willis, Sr., 91, Seattle surgeon, died October 26 in his home of a cerebral thrombosus and generalized cerebral arteriosclerosis. Dr. Willis was graduated from the University of Pennsylvania Medical School in 1891 and was awarded the school's Alumni Award of Merit in 1951. He was the oldest original member of the medical staff of the Children's Orthopedic Hospital in Seattle, and was a founder and the first president of the Seattle Community Fund. Dr. Willis was the first president of the Washington State Medical Association and a past president of the King County Medical Society. He was a founder and fellow of the American College of Surgeons. In 1945, Whitman College, from which Dr. Willis received his bachelor-of-science and master's degrees, awarded him an honorary doctor-of-laws degree. He served on the Whitman College board of trustees from 1909 to 1949.

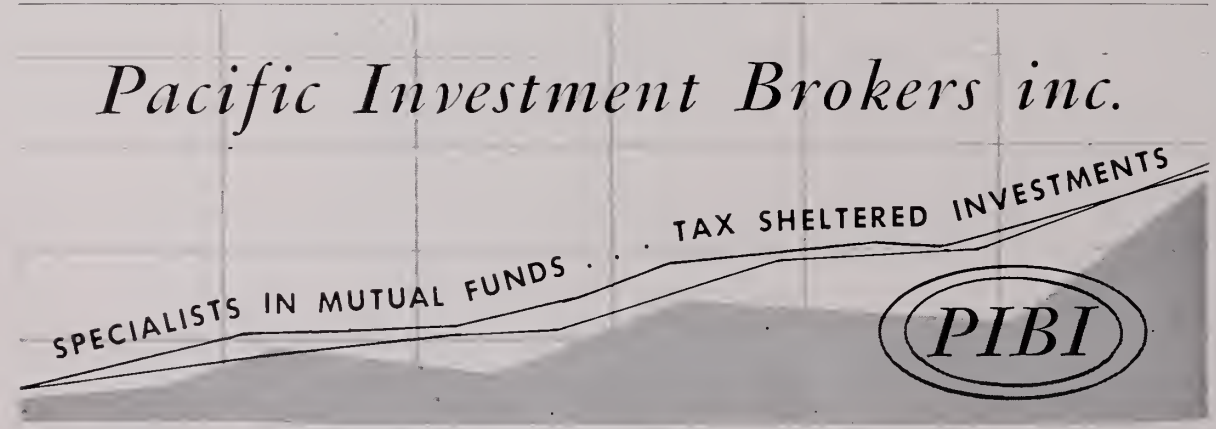
Dr. Albert E. Hillis, 84, a past-president of the Pierce County Medical Society, died October 24 in South Pasadena, California. Dr. Hillis had practiced in Tacoma for 40 years before retiring two years ago and moving to California. He received his medical degree in 1902 from the University of Michigan Medical School, Ann Arbor.

Locations

John S. Dunlop has entered into association with Albert F. Degner of Bremerton. Dr. Dunlop was graduated from the University of Illinois School of Medicine in 1955 and served his internship at Pierce County Hospital in Tacoma. He recently completed a tour of duty with the U.S. Air Force.

Clark County Medical Society

Trauma of the Chest Wall was title of the paper presented by Charles H. Sparks of Portland, guest speaker at the November 4 dinner meeting of Clark County Medical Society. During the business session that followed reading of the paper, William J. Gardner was elected to active membership in the Society.



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June 14-17, 1959
Sun Valley

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Exec. Secy., Mr. A. L. Bird, 364 Sonna Bldg., Boise

Southwestern Physicians Hear C. Smyth Lecture on Treatment of Rheumatoid Arthritis

Overdosage is a serious medical problem in treating rheumatoid arthritis with the new more powerful modifications of the cortisone drugs, Charley Smyth, associate professor of medicine at the University of Colorado and a nationally known rheumatologist, told members of the Southwestern Idaho District Medical Society at a meeting in October.

Pointing out that of all types of arthritis, rheumatoid arthritis is the "big crippler," with about one-third of all patients suffering from this type, Dr. Smyth said that physicians have fallen down on the greater chance to use the newer cortisone drugs because "we are all in the habit of relating dosage to cortisone and we unconsciously give larger and larger dosage, running a serious chance of overdosing." He warned physicians present to give the new, powerful drugs only to those patients who have definite indications of arthritis.

Dr. Smyth described the important new "sheep red blood cells" test for diagnosing arthritis cases. This laboratory test for early diagnosis has caused much interest, according to Dr. Smyth, who added that work had been done at the University of Colorado toward perfecting the test.

A training clinic for physicians was held at the Elks Rehabilitation center with Dr. Smyth as lecturer to conclude his two-day visit in Boise. During his visit Dr. Smyth and Chester Stevenson, Chief of Medicine at the Veterans Administration, conducted a diagnostic and teaching clinic for hospital staff members. Dr. Smyth's appearance in Boise was sponsored by the Idaho Chapter of the American Rheumatism and Arthritis Foundation.

Panel Discusses Health Program

President Donald K. Worden attended the annual meeting of the Idaho Congress of Parents and Teachers in Nampa, October 23. Dr. Worden participated in a panel which discussed "A Continuous Health Program." Other physicians who participated in the panel were J. R. Farber, Nampa pediatrician, and J. E. Wyatt, Boise, director of the City-County Health Department.

More than 700 members of the PTA from all sections of Idaho attended the session.

Cancer Programs Approved

Four Idaho hospitals have been named by the American College of Surgeons as conducting approved cancer programs. They are: Saint Luke's Hospital, Boise; the Latter Day Saints Hospital and the Saered Heart Hospital, Idaho Falls, and Merey Hospital in Nampa.



PRESIDENT'S CITATION AWARDED: Quentin W. Mack, Boise (r), president-elect of the Idaho State Medical Association, is shown receiving the "Physician's Award" for outstanding, meritorious service by the President's Committee on Employment of the Physically Handicapped at ceremonies in Coeur d'Alene, October 10. Mr. Vernon Banta, Washington, D.C. (l), Deputy Executive Secretary of President Eisenhower's Committee on the Handicapped, presented the award. Dr. Mack serves as chairman of the medical sub-committee of the state committee for Employment of the Physically Handicapped and is a member of AMA committee on Medical Rating of Physical Impairment.

Boise Valley Chapter of ACS To Meet

The mid-winter meeting of the Boise Valley Chapter of the American College of Surgeons will be held in Boise on Saturday, December 13.

Guest Speakers will be Walter J. Burdete, Salt Lake City, professor of surgery, University of Utah School of Medicine, and Walter P. Work, San Francisco, professor of otolaryngology, University of California School of Medicine.

Local speakers on the program include H. M. Chaloupka, Quentin W. Mack, Robert S. Smith and F. B. Jeppesen, all of Boise, and J. Lesley Montgomery of Caldwell.

L. J. Stauffer of Priest River Retires

L. J. Stauffer, long-time Priest River physician, has retired from active medical practice and is now making his home in Bothell, Wash. Dr. Stauffer was honored at a local Chamber of Commerce meeting in October when he was given a movie camera as a going away gift from a long list of Priest River friends. Mr. Don McInnis, president of the Chamber, made the presentation.

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1. Banyai, A. L.: Management of Cough in Daily Practice. *J.A.M.A.*, 148:501, Feb. 16, 1952.

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Resolutions Considered at 66th Annual Session

Following are the final resolutions considered by the House of Delegates of the Idaho State Medical Association during the 66th annual meeting, Sun Valley, July 6-9, 1958. Action of the House is in italics.

Resolution No. "K"

Whereas, the existing Idaho State Code requires an annual chest x-ray for communicable disease detection in school teachers, and

Whereas, repeated examinations have worked an economic hardship on many teachers, and

Whereas, the detection of tuberculosis by this means has been unproductive in repeated annual examination, and

Whereas, a pre-employment physical examination including a chest x-ray of any teacher entering a different school system would seem an adequate method of detecting communicable disease,

Now Therefore Be It Resolved, that the present law requiring an annual chest x-ray examination be repealed and that pre-employment physical examinations of teachers be required as a requisite to employment in a school system.

Resolution No. "K" was adopted by the House.

Resolution No. "L"

Whereas, it is common knowledge that syphilis is not transmitted through food or food handling, and

Whereas, syphilis as a disease has been nearly eradicated by newer methods of control, and

Whereas, the now required examination is a nonproductive procedure and an unnecessary economic burden on the worker, and

Whereas, all food handlers are subject to inspection by the State Board of Health,

Now Therefore Be It Resolved, that the section of the Idaho Code pertaining to the serological examination of food handlers be repealed and that the Idaho State Medical Association sponsor such legislation.

Resolution No. "L" was adopted by the House.

Resolution No. "M"

Whereas, it has been fairly well shown that the incidence of poliomyelitis has declined since the advent of the vaccination program against the disease, and,

Whereas, it is evident that the complete success of any vaccination program will depend upon the number of those vaccinated in the susceptible age groups, and

Whereas, surveys have shown that the age most susceptible range to 40 years,

Now Therefore Be It Resolved that the Idaho State Medical Association go on record as being in favor of vaccination against poliomyelitis for those to 40 years of age who have not yet been so vaccinated, and

Be It Further Resolved that this association encourage its component societies to further their publicity in their local areas to encourage such vaccination in these susceptible individuals.

Resolution No. "M" was adopted by the House.

Resolution No. "N"

Subject: The creation of an Allied Professional Committee for Higher Education

Whereas, the Idaho State Medical Association was instrumental in securing the legislation making Idaho a member of the Western Interstate Compact for Higher Education, and

Whereas, Medicine, along with Dentistry and Veterinarian Medicine, are vitally interested in the full development of this compact to provide graduate education for Idaho students in these fields, and

Whereas, a joint interest of the state associations of medicine, dentistry and veterinarian medicine would provide a more effective way of securing greater participation in the compact,

Now Therefore Be It Resolved that the Idaho State Medical Association create a liaison committee with the Idaho State Dental Association, the Idaho State Veterinarians Association and such other interested groups as may exist to study and present to the Legislature of the State of Idaho a presentation of the needs in graduate education in these fields, and

Be It Further Resolved that this committee cooperate with the Idaho Commissioners of the Western Interstate Commission for Higher Education.

Resolution No. "N" was adopted by the House.

Resolution No. "O"

Whereas, the Constitution and By-Laws Committee has studied the geographical boundaries of the ten component societies as instructed, and

Whereas, the committee finds that smaller societies are more active, have better attendance and are more representative of the feelings of the membership as a whole, and

Whereas, it is felt that there may well be a struggle to maintain the freedom of medicine in the future in the United States, and

Whereas, larger component societies by the unwieldly bulk of their numbers and lack of attendance do not adequately express the opinions of the individual members, and

Therefore, it is recommended that the boundaries of the component societies remain unchanged with one exception, that of the Southwestern Idaho District Medical Society.

It is the recommendation that this society be divided into two parts, one consisting of Adams, Canyon, Gem, Owyhee, Payette and Washington counties and the other to consist of Ada, Boise, Elmore and Valley counties.

Resolution No. "O" was rejected by the House.

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	William T. Wood, Coeur d'Alene—1960
	Melvin M. Graves, Pocatello—1961

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William T. Wood, Coeur d'Alene, 1959
A. Curtis Jones, Boise, 1960
James R. Kircher, Burley, 1961
Joseph B. Koehler, Pocatello, 1962

MEDIATIONS and PUBLIC RELATIONS
Manley B. Shaw, Boise, *Chairman*, 1959
E. V. Simison, Pocatello, 1959
Reuben C. Matson, Jerome, 1960
Wallace Bond, Twin Falls, 1960
Dauchy Migel, Idaho Falls, 1961
Robert Cordwell, Kellogg, 1961
Bernard Krielkamp, Twin Falls, 1962

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Frank W. Crowe, Boise
C. C. Johnson, Boise
A. Curtis Jones, Boise
Roscoe Ward, Boise
F. B. Jeppesen, Boise
E. D. Parkinson, Boise
A. H. Rossomondo, Nampa

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C. Gedney Barclay, Coeur d'Alene, 1961
Casper Pond, Pocatello, 1961

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NECROLOGIST
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INDUSTRIAL MEDICAL
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Robert E. Staley, Kellogg, 1963
Stanley Sell, Idaho Falls, 1959
A. B. Pappenhagen, Orofino, 1961
Roscoe C. Ward, Boise, 1961

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Wallace S. Douglas, Lewiston
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William R. Tregoning, Boise

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R. P. Sutton, Burley
Curtis Waid, Idaho Falls
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Ervine S. Bills, Idaho Falls

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Arch T. Wigle, Pocatello
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Ed Fitzgerald, Wallace (Shoshone County Society)
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L. E. Patrick, Caldwell (Southwestern Society)
Glenn A. Hoss, Twin Falls (South Central Society)
John W. Wurster, Pocatello (Southeastern Society)
Taylor H. Carr, Idaho Falls (Idaho Falls Society)

(Continued on page 1658)

(Continued from page 1657)

Aldon Tall, Rigby
(Upper Snake River Society)
Robert H. Burgoyne, Montpelier
(Bear River Society)

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R. Reed Fife, Idaho Falls

Idaho Chapter of AAGP Elects Officers At Annual Meeting in Boise

New officers of the Idaho Chapter, American Academy of General Practice, elected during the recent session in Boise, include: Joseph G. Wilson, Moscow, president; Arch T. Wigle, Pocatello, president-elect; W. Wray Wilson, Coeur d'Alene, secretary-treasurer; Asael Tall of Rigby and Ralph Buttermore of Grangeville, delegates to AAGP; and Aldon Tall of Rigby and L. F. Lesser of Boise, alternate delegates. Incumbent directors are Orvid Cutler of Preston and John T. Brunn of Meridian. Newly elected directors are John M. Ayers of Moscow, named to complete the unexpired term of Clyde E. Culp; John Bingham of Idaho Falls, to complete the unexpired term of Dr. Wigle; Joseph Marshall of Twin Falls and Joseph M. Thomas of Boise.

Approximately 100 physicians registered for the seventh annual meeting of the Idaho Chapter, which was held in the Hotel Boise. Guest lecturers were: Stuart Knox of the College of Medical Evangelists, Loma Linda, Calif.; M. Erik Wright of the University of Kansas, Kansas City, Mo.; R. B. Robins, president of the American Academy of General Practice, Camden, Ark.; William W. Hoffman, Stanford University, Palo Alto, Calif.; and Chester Swinyard, New York University.

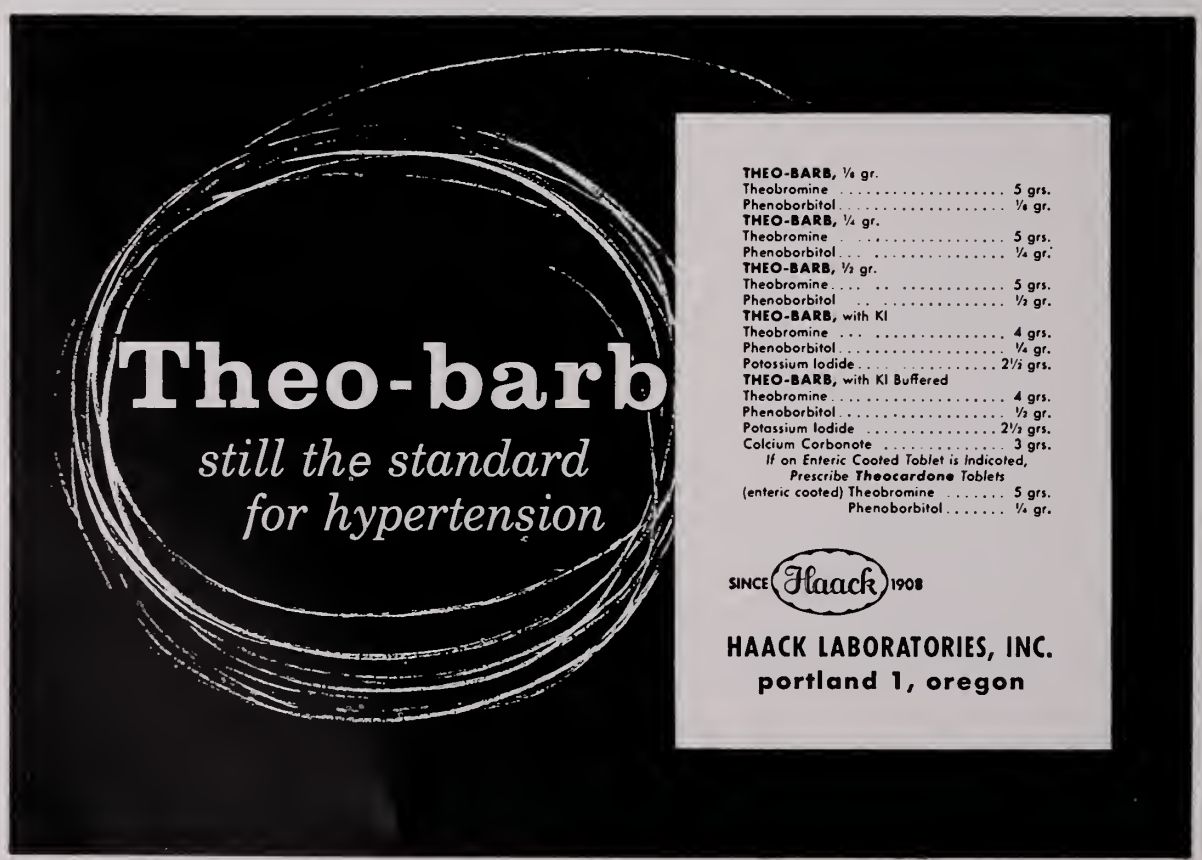
The state chapter's next annual meeting will be held in Moscow, Oct. 22-23, 1959.

State Board of Medicine

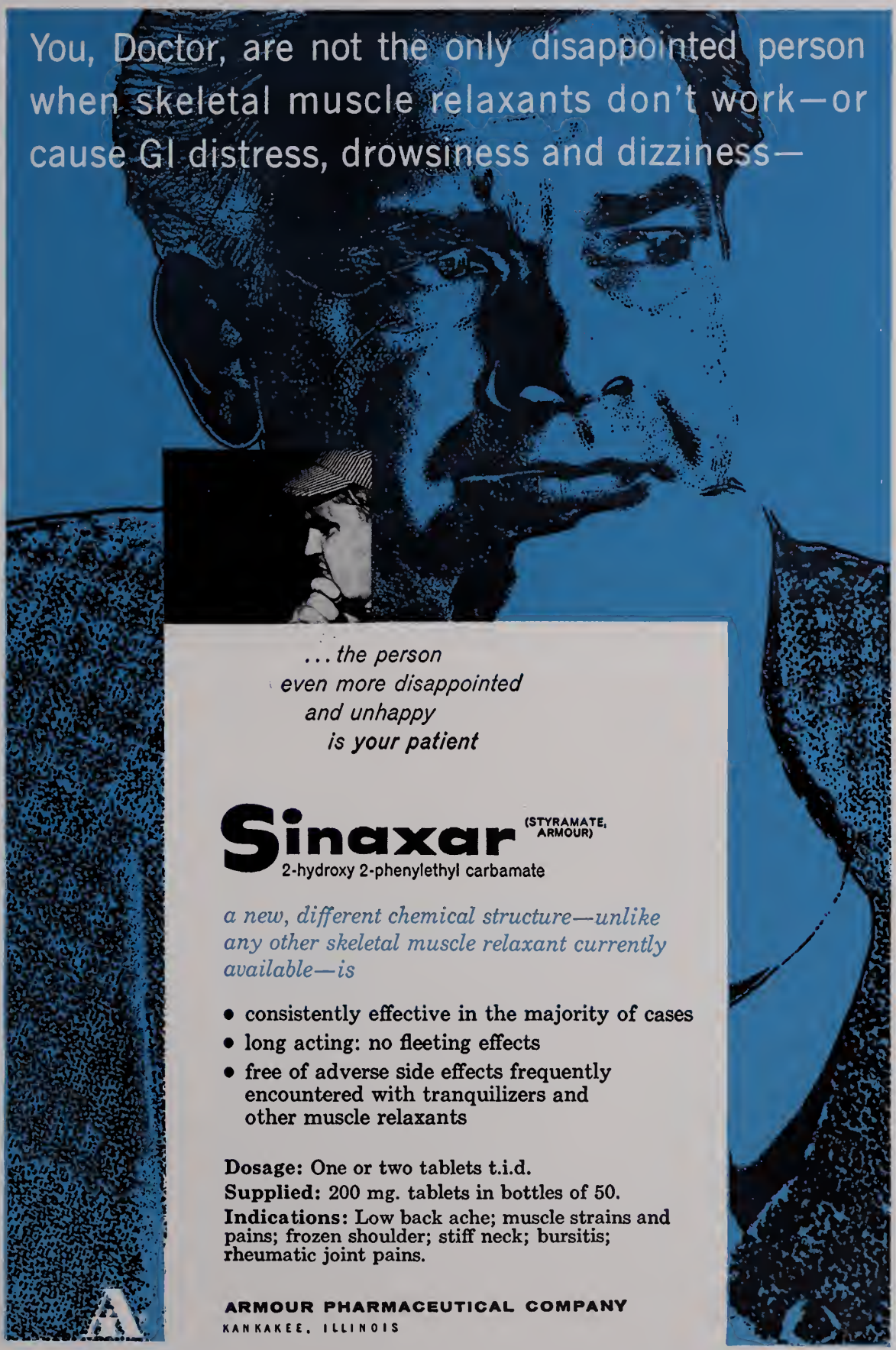
Two Temporary Licenses were issued during October to the following:

Horace E. Brogan, Moscow. Graduate St. Louis University School of Medicine, 1943. Internship St. John's Hospital, St. Louis, Missouri, 1943-44. Granted T-215 October 10. University of Idaho Student Health Service.

Philip Sheridan King, III, Pullman, Washington. Graduate University of Nebraska College of Medicine, 1952. Internship Good Samaritan Hospital, Portland, Oregon, 1952-53. Pathology Residency, Sacred Heart Hospital, 1954-57 and Baylor University Medical School, 1957. Granted T-214 October 20. Radiology.



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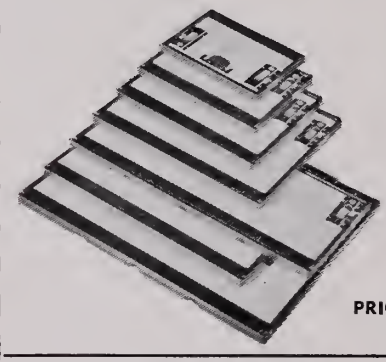
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Alaska

ALASKA STATE MEDICAL ASSOCIATION
1121 Fourth Avenue
Anchorage, Alaska

ANNUAL MEETING
March 19-21, 1959
Juneau

President, William Whitehead, M.D., Juneau

Secretary, Robert B. Wilkins, M.D., Anchorage



WILLIAM M. WHITEHEAD, M.D.

President's Page

This is the first opportunity I have had to thank the entire membership for electing me president of your Association at the Fairbanks meeting. Each month I hope to be able to report to you what has been going on within our new state. We are aware of the fact that only about one-half of our membership is able to attend our yearly meetings, so through this page we will endeavor to keep each member informed of our activities.

Statehood has and will create problems which we have never had before. It has given us much more national recognition than previously. The medical profession must be alert and on constant guard. Actually, the Medical Practice Act now in effect is excellent so we must be aware and protect it at all times.

As secretary of the Board of Medical Examiners for 15 years, it is very obvious to me that statehood has influenced a great number of doctors in wanting to come to Alaska to live. Most of our inquiries in the past were from curiosity-seekers, but now our inquiries are about five times more than before statehood and most of them seem to have a sincere desire to come to Alaska. One group of seven men has been desirous of moving to our state. The real fact is that we have just about enough doctors. There is space once in a while for one. We must have considerably more population before there is much demand for more doctors. The general practitioner still plays the biggest part in Alaska medicine although we are beginning to get more qualified specialists. When we were a territory, the stateside doctor was interested in Alaska but hesitated to make the move. Now that Congress has given us statehood, the stateside man has lost his fear for if Alaska is good enough to be granted statehood by Congress, there must be something there worthwhile.

The pharmaceutical houses are showing a tremendous amount of interest. Already one large concern has been considering a TV program and another has sent an interviewer to talk to the wife of an Alaskan doctor concerning the doctor-wife relationship, the results of which will soon be known in its monthly publication.

As you undoubtedly have heard from Blue Cross, there has been much curtailment of Medicare.

Your meeting for 1959 will be held in Juneau on March 19, 20, 21, at which time the new state legislature will be in session. In the past the territorial legislature convened during the latter part of January and adjourned 60 days later, so we will be in session after the legislature has been well organized. Hereto-

(Continued on page 1663)

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Phenacetin	120 mg.
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Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 oz.



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(Continued from page 1661)

fore the legislature has been composed of 16 senators and 24 house members. The new state legislature will be made up of 20 senators and 40 members of the house. This new redistricting of Alaska will give every community representation. Therefore the type of legislature is going to be different, so I think it is wise that we meet while it is in session.

We are arranging what should be an excellent program. We have been able to obtain noted speakers on skin diseases, chest diseases with allergic manifestations, cancer authorities, and of course the Polio Foundation will be represented. It is now time for our own members to be preparing papers which they will present, and to notify me of their titles.

I will try to arrange with NORTHWEST MEDICINE that your Association be allowed one member on the Board of Trustees and one member on the Editorial Advisory Board.

PLAN ON ATTENDING THE ALASKA STATE MEDICAL ASSOCIATION MEETING AT JUNEAU, MARCH 19, 20, 21, 1959

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Four Hundred Orthopedic Surgeons Hold Four-Day Scientific Session in Portland

Some 400 orthopedic surgeons from 17 states and Hawaii gathered in Portland, Oregon, October 22 to discuss subjects ranging from orthopedic diseases in small animals and football injuries to spinal surgery. The four-day session was the 22nd Annual Meeting of the Western Orthopedic Association.

Orthopedic Diseases in Animals

James Miles of Denver and co-author by invitation, Francis Andlin, D.V.M., also of Denver, presented the very unusual paper on Orthopedic Diseases in Small Animals which proved to be both entertaining and instructive. Through an amazing array of x-rays and photographs showing a variety of orthopedic diseases in dogs, cats and monkeys, the authors were able to illustrate how these paralleled experiences encountered in some of the surgeons' own problem patients. It was also pointed out that certain strains of animals are particularly susceptible to some diseases, such as Siamese cats to osteogenesis imperfecta and boxer dogs to dysplastic hips. Degenerative arthritis and disc protrusions were also shown to occur frequently in animals.

As athletic consultant for the University of Oregon football team, Donald Slocum of Eugene spoke with authority on The Mechanics of Football Injuries. He showed colored slides of how different types of injuries were incurred.

Radiation Induced Disease Discussed

Discussion of a timely research subject, Radiation Induced Osteogenic Sarcoma, was presented by Terrence H. Cochran of the Radiobiology Laboratory of the University of Utah; Webster S. Jee, radiobiologist at the same institution, and James S. Arnold of the U. S. Naval Radiological Defense Laboratory. They reported that intravenous injection of five different radioisotopes in dogs produced approximately 50 tumors, most of which were microtumors. However, they were able to produce osteogenic sarcoma in dogs using each of the five isotopes tested.

Using himself as the "victim" in an ultra-slow motion picture study, Irving Tuell of Seattle gave visual evidence to support his thesis that in the usual type of rear-end automobile collision the so-called "whip-lash" mechanism is not present. The film showed Dr. Tuell in a stopped car being hit by a second auto, first at 10 miles an hour and then at 20 miles an hour. The audience could see that Dr. Tuell's head did not bob back and forth like a weight on the end of a spring, but in fact never returned to more than an upright position.

Medicolegal Aspects of Orthopedic Surgery

Judge Eugene K. Oppenheimer of the circuit court in Multnomah County, Oregon; Mr. Hugh L. Biggs, legal counsel for the Oregon State Medical Society; and George B. Long, Portland internist, were members of a panel which discussed the legal aspects of orthopedic surgery. Illustrated situations of legal complications which could arise in the patient-surgeon relationship were presented in a down-to-earth, factual manner. Question period that followed indicated that the panel members' comments had been quite thought-provoking and well appreciated.

Unstable Internal Fixation of Fractures of Neck of the Femur was title of the extremely well-documented paper presented by Max Scheck of San Francisco. Dr. Scheck emphasized that posterior comminution of the neck of the femur gave non-union in 11 out of 15 such cases, and he suggested that early use of a primary replacement prosthesis could be seriously considered.

William Duncan of Seattle read an original paper on Plantar Reflexes in the Infant in which he spoke of the four basic cutaneous reflex patterns normally present in the newborn. Dr. Duncan then went on to show how some of these persist in spastics.

President Speaks on Western Waterfowl

President Joe Davis, in his presidential address, departed from the usual custom of a ponderous discussion of problems to divert his audience with a dissertation on Western Anatidae. It turned out to be a gentle ribbing of the audience in which, without implying that his friends were a bunch of birds, he extolled certain qualities of waterfowl as being desireable professional attributes. The better birds (Anatidae) usually display strength, fortitude and straight-forwardness.

On Friday, October 24, a group of three papers were presented on spinal surgery in the cervical and low back areas, emphasizing both the anterior and posterior approaches. Authors of these papers were Howard Cherry of Portland, Gerald Gill and Hugh White of San Francisco, and Paul Harmon of Los Angeles.

Charles Lowman of Los Angeles in speaking on Flailness of the Lower Extremities in Poliomyelitis pointed out the importance of abdominal fascial transplants in helping paralytics to walk.

One of the newer methods of diagnosis that shows a great deal of promise for the future was discussed by Robert L. Samilson and Frank L. Raney, Jr., both of San Francisco. In their paper, entitled Diagnostic Arthrography of the Shoulder, Drs. Samilson and Raney gave the method, and the normal and abnormal findings in the shoulder after injection of radiopaque material. Louis Edmunds of Seattle who used this diagnostic method on several patients after having had the procedure carried out on himself to show its innocuousness, added his comments to the authors' discussion.

Prizes Awarded to Residents

One of the features of the program was the awarding of prizes by the Association for outstanding research papers by residents in training in centers in the 11 Western states. A total of 21 papers were submitted. First place honors were shared by L. C. Folkes, who wrote on The Relative Importance of Periosteum and Blood Supply in Fracture Healing, and Albert F. Martin for his paper on Pathomechanics of the Knee Joint. Dr. Folke, who is at present in training at Children's Orthopedic Hospital in Seattle, prepared his paper while resident at the Veterans Administration Hospital in Portland. Dr. Martin did his work at the University of

(Continued on page 1666)


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MEDICAMENTA VERA

(Continued from page 1664)

California Medical School and Samuel Merritt Hospital in Oakland.

Second prize went to co-authors W. D. Guyer, now in Bend, Oregon, and C. A. Fagan, resident at Emanuel Hospital, Portland. They prepared their paper, Cavus Deformity of the Foot, while both were in training at the Shriners Hospital, Portland.

Third place honors were won by William Burkhalter and Sheldon Roger of the University of Colorado Medical Center and by Howard R. Baker of the Veterans Administration Sawtelle facility at Los Angeles. Drs. Burkhalter and Roger wrote on Prosthesis Arthroplasty of the Hip. Dr. Baker's subject was Non-Union of Fractures of the Trochanteric Area of the Femur.

Election of Officers

Election of officers raised William F. Stanek of Denver to the presidency of the Western Orthopedic Association with two other Denver physicians, J. Sims Norman and Alba Glasburn, being elected vice-president and historian respectively. Frazier McPherson of San Diego was named president-elect and Walter Scott of Los Angeles was renamed treasurer-historian.

The group's annual meeting next year will be held in Denver and the 1960 meeting will be in San Diego.•

Illinois Medical Society Requests Old Photos

The Illinois State Medical Society is preparing an exhibit centered around an *Illinois Medical Journal* article which told of the role of physicians in the development of the automobile in the United States at the turn of the century.

To help illustrate this exhibit, the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900-1910 vintage. Scenes showing difficulties on the road, or poor highway conditions, are especially desired. Enlargements will be made of these photographs and the originals returned undamaged.

Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. They should be sent to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1.

Western Conference on Anesthesiology To Be Held April 1-4 in Phoenix, Arizona

"The Heart of Anesthesia" will be the theme of the Biennial Western Conference on Anesthesiology to be held at the Westward Ho Hotel in Phoenix, Arizona, April 1-4, 1959.

The program will include individual papers and panel discussions. Topics selected for panel discussions are Applications of Clinical Anesthesia, Practical Uses of Monitory Devices—Which, When, How, to Whom?, and Unsolved Problems of Cardiac Surgery.

For additional information write to Boyden L. Crouch, M.D., 301 W. McDowell Rd., Phoenix, Arizona.

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—Thomas Carlyle

BOOKS

RECEIVED

The following books have been received. Publication of this acknowledgment is to be considered adequate return to the sender. Selected titles will be reviewed as space permits.

The Eye. A Clinical and Basic Science Book. By E. Howard Bedrossian, B.S., M.D., M.Sc. (Med.), F.A.C.S., Assistant Professor of Ophthalmology in the Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Pa.; Assistant Surgeon, Wills Hospital, Philadelphia, Pa.; Associate Ophthalmologist, Graduate Hospital, Philadelphia, Pa.; Chief of Ophthalmology, Delaware County Hospital, Drexel Hill, Pa.; Fellow, The American College of Surgeons; Fellow, Philadelphia College of Physicians; Fellow, The American Academy of Ophthalmology and Otolaryngology; Fellow, Aero Medical Association. With a Foreword by Edmund B. Spaeth, M.D. 340 pp. Illustrated. Price $11.00. Charles C Thomas, Springfield, Ill. 1958.

Electrolyte Changes in Surgery. Kathleen E. Roberts, M.D., Assistant Chief of Medicine, United States Public Health Service Hospital; Assistant Professor of Medicine, Stanford University College of Medicine, San Francisco, California; Formerly, Assistant Professor of Medicine, Cornell University College of Medicine; Section Head, Clinical Physiology Department, Sloan-Kettering Institute for Cancer Research; Consultant, United States Public Health Service Hospital, New York City. Parker Vanamee, M.D., Assistant Attending Physician, Memorial Hospital for Cancer and Allied Diseases; Assistant Professor of Medicine, Cornell University College of Medicine; Associate, Sloan-Kettering Institute for Cancer Research, New York City. J. William Poppell, M.D., Chief, Section of Cardio-Pulmonary Physiology and Associate, Sloan-Kettering Institute for Cancer Research; Assistant Attending Physician, Memorial Hospital for Cancer and Allied Diseases; Assistant Professor of Medicine, Cornell University College of Medicine, New York City. 113 pp. Illustrated. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Applied Medical Library Practice. By Thomas E. Keys, A.B., M.A., Librarian of the Mayo Clinic, Rochester, Minnesota; Assistant Professor of History of Medicine, Mayo Foundation; Graduate School, University of Minnesota. With chapters by Catherine Kennedy, B.S., L.S., Associate Librarian, Mayo Clinic; Ruth M. Tews, B.S., L.S., Hospital Librarian, Mayo Clinic. 495 pp. Price $10.75. Charles C Thomas, Springfield, Illinois. 1958.

The Care of the Geriatric Patient. Edited by E. V. Cowdry, Ph. D., Sc. D. (Hon.) Director of Wernse Cancer Research Laboratory, Washington University School of Medicine; formerly President of the Gerontological Society and of the Second International Gerontological Congress; Chairman of the Medical and Scientific Committee, American Society for the Aged, Inc. 438 pp. Illustrated. Price $8.00. The C. V. Mosby Company, St. Louis, Mo. 1958.

Schizophrenia. By Manfred Sakel, M.D. 335 pp. Price $5.00. Philosophical Library, New York.

Treatment of Breast Tumors. Robert S. Pollack, M.D., F.A.C.S., Clinical Instructor in Surgery, Stanford University School of Medicine; Clinical Instructor in Surgery (Oncology), University of California School of Medicine; Assistant Chief of Surgery, Mount Zion Hospital, San Francisco, California; Consulting Surgeon, Oakland Veterans' Administration Hospital; Consulting Surgeon, Oakland Naval Hospital, Oakland, California. 147 pp. 47 Plates and 16 Text Figures. Price $6.00. Lea and Febiger, Philadelphia, Pa. 1958.

The Doctor Business. By Richard Carter. 283 pp. Price $4.00. Doubleday & Company, Inc., Garden City, New York.

Injuries and Surgical Diseases of the Ischium. Henry Milch, M.D., Attending Orthopedic Surgeon, Hospital for Joint Diseases, New York. 162 pp. Illustrations. Price $10.50. Paul B. Hoeber, Inc., Medical Book Department of Harper and Brothers, New York, N.Y. 1958.

Poisoning. A Guide to Clinical Diagnosis and Treatment. 2nd Ed. By W. F. von Oettingen, M.D., Ph. D., National Institutes of Health, U.S. Public Health Service, U.S. Department of Health, Education and Welfare. 627 pp. Price $12.50. W. B. Saunders Company, Philadelphia, Pa. 1958.

Amid Masters of Twentieth Century Medicine. A Panorama of Persons and Pictures. By Leonard G. Rowntree, M.D., Formerly Western Medical School, Victoria Hospital, London, Canada; The John Hopkins Medical School; Professor of Medicine, University of Minnesota; Chief of Medicine, Mayo Foundation; Director of Philadelphia Institute for Medical Research; Executive Officer of the A.E.F. Air Service (Medical), World War I; Chief of Medicine, National Headquarters of Selective Service; World War II, Colonel, M.R.C., U.S.A. Presently Chairman, Medical Advisory Board, The American Legion; Chairman, Dean's Committee, V.A. Hospital, Coral Gables; Co-founder, University of Miami, School of Medicine. With an Introduction by G. F. Lull, M.D., Secretary and General Manager, The American Medical Association. 684 pp. Illustrated. Price $11.50. Charles C Thomas, Springfield, Ill. 1958.

Difficult Diagnosis. A Guide; to the Interpretation of Obscure Illness. By H. J. Roberts, M.D., Diplomate of the American Board of Internal Medicine; Fellow of the American College of Chest Physicians; Associate of the American College of Physicians; Staff, Good Samaritan Hospital and St. Mary's Hospital, West Palm Beach, Florida; Formerly, Research Fellow and Instructor in Medicine, Tufts University Medical School; Formerly, Research Fellow and Instructor in Medicine, Georgetown Medical School. 913 pp. Price $19.00. W. B. Saunders Co., Philadelphia, Pa. 1958.

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The Circulation of the Blood. Two Anatomical Essays by William Harvey together with nine letters written by him. The whole translated from the Latin and slightly annotated by Kenneth J. Franklin. 184 pp. Illustrated. Price $4.50. Charles C Thomas, Springfield, Ill. 1958.

Pediatric Methods and Standards. 3rd Ed. Department of Pediatrics, School of Medicine, University of Pennsylvania. Editor Fred H. Harvie, M.D., Associate Professor of Clinical Pediatrics. 300 pp. Price $4.50. Lea and Febiger, Philadelphia, Pa. 1958.

Tumors and Tumorous Conditions of the Bones and Joints. By Henry L. Jaffe, M.D., Director of Laboratories and Pathologist, Hospital for Joint Diseases, New York, N.Y., Consultant, Armed Forces Institute of Pathology, Washington, D.C. 701 Illustrations on 194 Figures. 629 pp. Price $18.50. Lea & Febiger, Washington Square, Philadelphia 6, Pa. 1958.

Trifluoperazine. Clinical and Pharmacological Aspects. Twenty-five Original Reports with an Introduction by Henry Brill, M.D., Assistant Commissioner, New York State Department of Mental Hygiene, Albany, New York. 219 pp. Price $3.50. Lea and Febiger, Philadelphia, Pa. 1958.

What We Do Know About Heart Attacks. By John W. Gofman, M.D., Professor of Medical Physics, University of California, Berkeley. 180 pp. Illustrated. Price $3.50. G. P. Putnam's Sons, New York. 1958.

Clinical Obstetrics and Gynecology. (A Quarterly Book Series) Vol. I, No. 3. Symposium on Special Diagnostic Aids. Edited by C. Paul Hodgkinson, M.D.; Symposium on Abnormal Uterine Bleeding. Edited by John I. Brewer, M.D. September 1958. 852 pp. Illustrated. Price $18.00. Paul B. Hoeber, Inc. Medical Book Department of Harper & Brothers, New York. 1958.

Convulsive Disorders of Children. Dora Hsi-Chih Chao, M.D., Physician and Assistant Director, Blue Bird Clinic, Methodist Hospital, and Assistant Professor of Pediatrics and Neurology, Baylor University College of Medicine, Houston; Ralph Druckman, M.D., Neurologist, Blue Bird Clinic, Methodist Hospital, and Assistant Professor, Departments of Neurology and Physiology, Baylor University College of Medicine, Houston; Peter Kellaway, A.M., Ph. D., Director, Blue Bird Clinic, Methodist Hospital and Associate Professor, Department of Physiology, Baylor University College of Medicine, Houston. 151 pp. Illustrated. Price $6.00. W. B. Saunders Co., Philadelphia, Pa. 1958.

Epilepsy. Manfred Sakel, M.D. With a preface by Otto Poetzl, Professor Emeritus, University and Clinic of Vienna. 204 pp. Price $5.00. Philosophical Library, New York. 1958.

Emergency War Surgery. U.S. Armed Forces Issue of Nato Handbook Prepared for Use by the Medical Services of Nato Nations. United States Department of Defense. 411 pp. Illustrated. Price $2.25. U.S. Government Printing Office. Washington 25, D.C. 1958.

REVIEWS

Books reviewed in the columns of Northwest Medicine may be borrowed by any subscriber. Write Miss Ruth Horlomert, Librarian, King County Medical Society Library, Room 121, Cobb Bldg., Seattle 1, Wn. The library appreciates, but does not demand, reimbursement for postage.

CONGENITAL ANOMALIES OF THE HAND AND THEIR SURGICAL TREATMENT. By Arthur Joseph Barsky, M.D., D.D.S., Professor of Clinical Surgery, Albert Einstein College of Medicine, New York City. 165 pp. Illustrated. Price $5.75. Charles C Thomas, Springfield, Ill. 1958.

This 160 page monograph has been written by an experienced plastic surgeon and is based largely on 165 personal cases. In addition there is a survey of the medical literature over the past 35 years with a review of 200 articles. Several Egyptian papyri were reviewed by the author and this will give the reader some conception of his thoroughness. The monograph is extensively illustrated. In addition to the text itself, there is a glossary of terms, and extensive bibliography and an appendix containing a statistical recapitulation of the author's own cases. This monograph would be a valuable reference source for any surgeon dealing with children.

A. J. Sheridan, M.D.

MEMOIRS OF A G.P. By Otis Marshall, M.D. 155 pp. Price $3.50. Vantage Press, New York. 1958.

Dr. Marshall's memoirs of a varied and colorful career are an excellent word picture of the life of a currently informed M.D. during the first half of the 20th century.

He touches upon the frequent struggle to get a primary medical education, the unintentional or accidental results that may gain a reputation, whereas his best work is frequently overlooked, or may even be his downfall. Throughout his years of private practice is interwoven that wonderful patient—family physician relationship, a far cry from the studied "bedside manner" of many doctors today, and most vividly expressed by a 4 year old child. My son George and I spent a short vacation with friends in an old mining camp. They had two children, a boy of 4 and a girl 9. Hazel and I were seated on one side of the table with Raymond and George opposite us. We were having a wonderful time when George asked: "Dad, will you please pass the gravy?" Raymond turned on him with eyes flashing. "What did you call him?" "I called him Dad—he is my Daddy, Raymond." "He is not your Daddy! He is Dr. Kellogg!"

This book will be read and enjoyed by the general public as well as the profession.

It gives one a glimpse of the early practice of medicine in Virginia, and Dr. Marshall's trips abroad give the reader the impression of being on a well-conducted tour.

During the transition period from empirical medicine to a scientific basis the demands on the general practitioner varied with the population. In the old settled eastern states, medical centers and specialists were available, whereas in the isolated sections of the far west the doctors were on their own and specialists in every department of medical endeavor.

G. O. A. Kellogg, M.D.

MANAGEMENT OF CHILDHOOD ASTHMA. By Frederic Speer, M.D., Assistant Clinical Professor of Pediatrics, University of Kansas School of Medicine. 116 pp. Price $4.75. Charles C Thomas, Springfield, Ill. 1958.

The most favorable comment that can be made about this book is the fact that there are 100 readable pages. The print is large and any physician can read and digest the material in a single sitting.

The introduction is different than most other books on allergy. None of the theory or immunologic aspects of allergy are touched. The first chapter covers the Asthmatic Child and His Family. We are then introduced to the Diagnosis of Asthma and its etio-

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logic factors. The author then introduces you to the history taking and techniques of testing.

The writer might be criticised for his statement that he uses intracutaneous testing very little although he does not state at what age. It is true that intracutaneous testing, or the intradermal testing, is not used extensively in infants; however, it is a very important part of our diagnostic equipment. In children a great many important positives may be missed without adequate testing and adequate testing means intradermal tests.

The chapter on the Treatment of the Asthmatic Attack is simplified and probably adequate; however, the chapter on Hyposensitization may be found confusing to one starting to practice this phase of allergy. The chapter on Allergic Cookery is insufficient.

I am sure the book expresses Dr. Speer's manner in which he practices allergy and is written in a simple, readable style. The physician trained in allergy would derive very little from it .The general practitioner or the pediatrician who is untrained in allergy, but is interested in the diagnostic and care of asthma in childhood, could give his asthmatic patients adequate care by putting in practice the procedures as discussed in this book.

J. E. Stroh, M.D.

ANOMALIES OF INFANTS AND CHILDREN. By D. McCullagh Mayer, D.D.S., M.D., Associate Professor of Plastic Surgery, New York Medical College, New York; and Wilson A. Swanker, M.D., Professor of Plastic and Aesthetic Surgery, Ankara University, Turkey; Associate, New York Medical College. 454 pp. Illustrated. Price $12.00. McGraw-Hill Book Co., Inc., New York. 1958.

Within the covers of this book may be found a well organized comprehensive list of the congenital anomalies. It starts from the head and works down the complete anatomy in orderly fashion. It gives enough of a synopsis of the embryology, anatomy, pathology and treatment to whet the appetite of the student, who may then seek a more comprehensive discussion of the particular subject by referring to the ample bibliography at the end of each chapter.

It should be a handy desk reference for quick perusal on most congenital anomalies. Only one subject is treated extensively and reflects the author's special interest. That subject is burns.

David M. Harris, M.D.

ORTHOPEDIC DISEASES: PHYSIOLOGY, PATHOLOGY, RADIOLOGY. By Ernest Aegerter, M.D., Professor of Pathology and director of Department of Pathology, Temple University Medical Center and School of Medicine; Professor of Orthopedic Pathology, University of Pennsylvania Graduate School of Medicine, and John A. Kirkpatrick, Jr., M.D., Assistant Professor of Radiology, Temple University Medical Center. 602 pp. 354 figures. Price $12.50. W. B. Saunders Co., Philadelphia and London. 1958.

A pathologist and a radiologist have joined forces to present an excellent book on the various diseases which directly or indirectly affect the skeletal system. While not intended to be a complete catalogue of all bone disease, it does include uniformly complete descriptions of the common as well as the lesser known congenital, developmental, nuritional, circulatory, metabolic, infectious and neoplastic disorders of bone. The initial chapters on "General Considerations of Connective Tissues" will serve to bring the practitioner abreast of the intensive activity in the field of bone morphology and function, and will, for some time to come, be useful to the student as a point of departure in his area. The subject material is carefully organized, easy to read, and avoids technical minutiae. There is a commendable minimum of medical name-dropping, and the reference material at the conclusion of each chapter is carefully selected and current. The illustrations, photomicrographs, and x-ray reproductions are outstanding, from the point of view of both reproduction and content, and are well related to each other and the text. The title is somewhat misleading, in that the text material is devoted almost entirely to abnormalities of the bony skeleton. A similar treatment of the pathology of the soft parts would be an excellent companion piece.

William R. Duncan, M.D.

HOSPITAL PLANNING FOR THE ANESTHESIOLOGIST. By William H. L. Dornette, M.D., Professor of Anesthesiology and Head of the Department, The University of Tennessee College of Medicine, Memphis, Tennessee; Formerly, Assistant Professor of Anesthesiology, The University of Wisconsin College of Medicine, Madison, Wisconsin; The University of California School of Medicine, Los Angeles, California. 119 pp. Illustrated. Price $5.25. Charles C Thomas, Springfield, Ill. 1958.

This small book of about a hundred pages is must reading for anyone who has the responsibility of participating in formulating the plans for a new hospital. It is divided into 27 short chapters dealing with specific subjects. Much of the material has been published previously in the News Letter of the American Society of Anesthesiologists, Inc., in a column called, "Hospital Planning and Construction."

The author has the ability to direct the reader's attention to specific problems and to make a number of suggestions which stimulate one to think in terms that best suit a local situation. If all the ideas presented were incorporated in a single plan the resulting structure would be unrealistic. However, it is helpful to realize that a small book exists which deals with many valuable suggestions in solving a highly complicated problem.

The author has used, to advantage, a number of photographs and cartoons to convey information or establish a point of view. These help to hold one's attention while data on highly technical though necessary details are placed before the reader. Dr. Dornette is to be commended for his readable style and the fact that he has explored the need and possibilities so thoroughly.

C. P. Wangeman, M.D.

PATHOLOGY FOR THE PHYSICIAN. Ed. 6, thoroughly revised. By William Boyd, M.D., Dipl. Psychiat., M.R.C.P. (Edin.), Hon. F.R.C.P (Edin.), F.R.C.P. (Lond.), F.R.C.S. (Can.), F.R.S. (Can.), L.L.D. (Sask.), (Queen's), D.Sc. (Man.), M.D. (Oslo), Professor Emeritus of Pathology, University of Toronto; Visiting Professor of Pathology, University of Alabama, Formerly Professor of Pathology, University of Manitoba and University of British Columbia. 900 pp. 489 illustrations and 12 plates in color. Price $17.50. Lea & Febiger, Philadelphia. 1958.

This is the sixth edition of the text previously published with the title, Pathology of Internal Diseases. It is up-to-the-minute and thorough, including discussions of such items as the carcinoid tumor-cardiovascular syndrome, and the fine structure of the kidney and its relation to function, as shown by electron microscopy. The photomicrograph illustrations, including the electron microscope reproductions, are good, but the gross pictures are few and of variable quality. There are a number of typographic errors. I noted most in the chapter on the adrenals.

Boyd's lucid and entertaining style of writing is well-known and needs no added comment. This book should be as popular as its predecessors.

Gordon LaZerte, M.D.

ETIOLOGY AND TREATMENT OF LEUKEMIA: PROCEEDINGS OF THE FIRST LOUISIANA CANCER CONFERENCE. Edited by Walter J. Burdette, Ph.D., M.D., Professor and Head of Department of Surgery and Director of Laboratory of Clinical Biology, University of Utah College of Medicine, Salt Lake City, Utah. 167 pp. Illustrated. Price $4.00. C. V. Mosby Co., St. Louis. 1958.

This is an almost verbatum transcript of a symposium on the Etiology and Treatment of Leukemia of the First Louisiana Cancer Conference. The date of this meeting is not recorded. It was sponsored by the Louisiana State University School of Medicine and Tulane University School of Medicine. The

book contains about 120 pages of text. Experts in each field present their views. Virus etiology of cancer is discussed by Jerome T. Syverton, etiology of leukemia by Arthur Kirschbaum, infectious concept of leukemia by Ludwik Gross and filterable agents prepared from leukemic tissue causing leukemia and other cancers in mice by Woolley.

The first part is probably the most interesting section of the book from the average practitioner's standpoint, because there is so much in the literature about viruses and cancer. They present arguments for and against a viral etiology and agreement is far from attained.

Treatment of leukemia is discussed but this type of material is more easily available than is the discussion of etiology of leukemia. It made excellent reading for me and I am sure it would for anyone else having any interest in the etiology of any malignancy. This is an interesting topic currently and many different concepts are explored.

Q. B. DeMarsh, M.D.

HANDBOOK OF TREATMENT OF ACUTE POISONING. Ed. 2. By E. H. Bensley, M.D., Associate Professor of Medicine and Lecturer in Toxicology, McGill University; and G. E. Joron, M.D., Assistant Physician, Department of Metabolism and Toxicology and Department of Medicine, Montreal General Hospital; Demonstrator in Medicine, McGill University. 212 pp. Price $4.00. E. & S. Livingstone Ltd., Edinburgh & London, 1958. Distributed by Williams & Wilkins Co., Baltimore.

This is a good handbook on poisoning which should be very useful in the physician's office. Substances are grouped under general headings as well as indexed individually, leading to a practical and quick reference system. Treatment is itemized at the same place in the book where the substance is listed and hence cuts down second checking which tends to be time-consuming. Of particular help in this book is a division in the treatment section of what to do until the physician arrives as well as what to do by the physician. The treatments are listed in adult doses which can be fairly adequately changed to pediatric doses when indicated.

Donald A. Sutherland, M.D.

SIGNS, SYMPTOMS AND TREATMENT OF CERTAIN ACUTE INTOXICATIONS. Ed. 2. By William B. Deichmann, Ph.D., Professor and Chairman, Department of Pharmacology, University of Miami, School of Medicine, Coral Gables, Florida; and Horace W. Gerarde, M.D., Ph.D., Bureau of Biological Research, Rutgers, The State University, New Brunswick, New Jersey. 154 pp. Price $3.75. Charles C Thomas, Springfield, Ill. 1958.

This is an excellent, comprehensive handbook. It has good indexing and up-to-date treatment. The first edition of this same book has been used in many physician's offices as well as Poison Control Centers. There is a good section on general supportive measures. Again the authors have prepared a handbook that covers most of the poisons encountered in everyday practice. No handbook can, of course, hope to cover even a large portion of the 250,000 plus products commercially available.

Donald A. Sutherland, M.D.

RELIGIOUS DOCTRINE AND MEDICAL PRACTICE. By Richard Thomas Barton, M.B., B.S., M.D., Associate Consultant, University of California. Foreword by Raymond B. Allen, M.D., Chancellor, University of California at Los Angeles. 94 pp. Price $3.75. Charles C Thomas, Springfield, Ill. 1958.

The author has presented, in a 90 page book, concise, factual, up-to-the-minute information for physicians whose practice includes patients of differing religious faiths.

What do the large religious groups in America believe about healing, the nature of disease, diet, and the role of the physician? Is there a place for spiritual healing? How can the physician cooperate with a priest or rabbi in restoring his patient to physical and mental health? These and many other questions are skillfully answered.

This book brings together for the first time the present day beliefs concerning medicine, disease, faith healing, abortions, birth control, artificial insemination, blood transfusions, and autopsies of the major religious bodies in the U.S.A. (i.e., Protestantism, Roman Catholicism, Judaism, Eastern Orthodox, Islam, Mormons, Jehovah's Witnesses, Adventists, Christian Science, Unity).

All physicians, especially psychiatrists, will find this book a valuable addition to their libraries.

Willard F. Goff, M.D.

MEDICAL TERMINOLOGY SIMPLIFIED. By Louis L. Perkel, B.S., M.D., Professor of Gastroenterology, Seton Hall College of Medicine, Jersey City, New Jersey. Foreword by Charles L. Brown, M.D., Dean, Seton Hall College of Medicine, Jersey City, New Jersey. 103 pp. Price $3.85. Charles C Thomas, Springfield, Ill. 1958.

Doctors and medical students who are interested in words and how they got that way will be fascinated by this book. For the student, it gives basic information on how medical terms are built and from what sources they derive. This is vital information for the novitiate.

For the older physician who thinks he knows already, there is still much of interest. Example: "symposium" in ancient Greece meant a drinking party with some intellectual conversation. Now it means a conference with intellectual conversation—but no drinking.

While the author may not be totally accurate as to the modern definition of the term, the word that the Greeks had for it starts an interesting trend of thought.

Symposium cannot be synonymous with cocktail party. Though the drinking is there, the conversation rarely can be termed intellectual. This implies that either the Greeks were a heartier breed or that their booze was watered down to considerably less than our standard 80-proof.

You will have fun with this book. I recommend it.

Eric R. Sanderson, M.D.

MODERN CLINICAL PSYCHIATRY. Ed. 5. By Arthur P. Noyes, M.D., Superintendent, Norristown State Hospital, Norristown, Pennsylvania; and Lawrence C. Kolb, M.D., Professor and Executive Officer, Department of Psychiatry, College of Physicians and Surgeons, Columbia University. 694 pp. Price $8.00. W. B. Saunders Co., Philadelphia and London, 1958.

The essence of viewpoint and facts in American psychiatry today are presented with overall comprehensiveness in this textbook. The first seven chapters appear to serve the purpose of getting on top of an immense amount of basic psychiatric insight. I felt a sense of frustration at the degree of verbiage and redundancy encountered in that attempt. However, after wading through this area, I was pleasantly surprised to gain a precipitate of orientation, quite valuable to the remaining 21 chapters. And perhaps this is the gain achieved at the cost of redundancy.

The remainder of the book consists of sufficient and yet concise chunks of knowledge. The final chapter deals with psychiatry and the law, which in my experience has been a vague area to most medical men engaged primarily beyond the field of psychiatry itself. Indeed, I commend this book as valuable psychiatric coverage for student and physician alike.

Bernard J. Pipe, M.D.

CHEMISTRY OF LIPIDES AS RELATED TO ATHEROSCLEROSIS: A SYMPOSIUM. Compiled and Edited by Irvine H. Page, M.D., Cleveland Clinic Foundation, Cleveland, Ohio. 342 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

In this series of 18 lectures, scientists from California to Sweden take the student back to his biochemistry, then push him through a rapid preview of such matters as gas-liquid chromatography, cis-trans forms, plasmalogens, lipoprotein lipase, and

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other complex matters, such as cellular enzymology and thioltransacylation. There is one lecture only, by E. H. Ahrens, Jr., that deals with current clinical experiments on unsaturated fatty acids—and this seems misplaced and limited in perspective in the midst of the more basic reports. Some of the material, I find, serves to sharpen the focus of the fading outlines of my biochemistry. Some serves to increase my acquaintance with current approaches and techniques even if I do not fully understand the details. And some is gibberish to me.

William E. Watts, M.D.

CLINICAL AND IMMUNOLOGIC ASPECTS OF FUNGOUS DISEASES. By J. Walter Wilson, M.D., Los Angeles, Calif., Clinical Professor of Medicine (Dermatology), University of Southern California. 280 pp. Price $6.75. Charles C Thomas, Springfield, Ill. 1957.

Better start at the beginning of this book. So often in medical texts one may read chapters in any order without loss of continuity. Not so here, where the introduction leads to chapter one and the first few chapters lay the groundwork for the rest of the book.

The author feels that study of the systemic fungous disease, coccidioidomycosis, delineates some clues which are especially valuable in bettering our understanding of the mycoses in particular and of the infectious diseases in general. As he presents it, this disorder exhibits a unique series of well defined phenomena which, when correlated with the clinical course of the disease, serves to advance one's understanding of epidemiology, pathology, allergy and immunology. Some of these phenomena are duplicated, at least partially, in several of the deep mycoses and indeed in some non-mycotic diseases. Throughout the book the author pursues an interesting thread of theory that gradually unfolds and makes for continuity in what, at times, appears to be apparent contradiction.

This is a book that will stimulate your thinking and will contribute to your true understanding of this too frequently neglected area in medicine.

E. Harold Laws, M.D.

MANUAL ON CARDIAC RESUSCITATION. Ed. 2. By Robert M. Hosler, M.D., Cleveland, Ohio. 208 pp. Price $5.50. Charles C Thomas, Springfield, Ill. 1958.

The thoracic surgeon has mixed feelings when reading this manual. It would appear that the book might well have been coauthored by Dr. Claude Beck since the majority of the information included is his and he is referred to constantly. Further, the first half of the manual is redundant with non-contributory details of history, mechanisms of heartbeat and etiology of cardiac arrest. The actual meat of the book is succinctly outlined in a few pages in the middle of the book and this would well accomplish the purpose of the manual without the other information that has been included. However, the additional information does make interesting reading.

It seems to me that the most important contribution of the book, since the treatment of cardiac arrest is now rather clearly understood in all major hospitals, is the suggestion that cardiac massage and defibrillation be used in instances of acute coronary insufficiency with mechanism death. Certainly a significant number of people who die of coronary insufficiency could be saved by using this method promptly. The suggestion made by the author that these patients be grouped in convenient areas of the hospital with adequate equipment available is an excellent one. It would seem mandatory to put some such plan into operation.

The techniques of resuscitation following drowning deserve more amplification and a more prominent place in the manual.

If this book were required reading for all interns, a new generation of physicians would have a basic understanding that perhaps many physicians currently practicing do not possess. Certainly there would be benefit to all practicing surgeons in at least scanning the book in order to be fully cognizant of the facts that Dr. Hosler is presenting, even though many surgeons undoubtedly have these facts at their fingertips.

Franklin R. Smith, M.D.

ESSENCE OF SURGERY. By C. Stuart Welch, M.S., M.D., Ph.D., Professor of Surgery, Albany Medical College of Union University, Albany, N.Y.; and Samuel R. Powers, Jr., M.D., M.Sc.D., Professor of Experimental Surgery, Albany Medical College of Union University, 320 pp. 50 figures. Price $7.00. W. B. Saunders Co., Philadelphia. 1958.

A summing up of one's thinking on any subject sems apropos in the field of general surgery and is certainly not only the prerogative of novelists, philosophers and others. I think every doctor would do well to review this 300 page summing up of principles of surgical treatment which have withstood the test of time and have remained foremost in the thinking behind this recording of a large surgical experience. The first chapter is a brief review of surgical history with a discussion of the physiologic advances of our present century, a discussion of the influence of the two great wars, with reference to the dilemma of surgical specialization and with a brief review of experimental surgery at this time.

Prior to a discussion of the principles of surgical treatment the authors discuss in considerable detail much of what we understand of the phenomenon of bodily injury, wound healing, loss of body fluids, with a summary of our present knowledge regarding types of and concepts in the etiology of shock. The author elucidates principles in the treatment of

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infection after discussing the nature of same, principles of pre- and postoperative care, principles of operative management and technique, principles of extirpative surgery, reconstructive surgery, physiologic surgery with a discussion of the role of surgery in the modification of body function. It is interesting to see a summary of the experience in the last two wars relative to the interruption of critical blood vessels and the effect thereof.

I think the amount of basic important information included in this small volume far exceeds that included in much more prolific efforts and I feel it would be worth a great deal to all doctors though it will be likely most attractive to surgeons.

Allan W. Lobb, M.D.

ORR'S OPERATIONS OF GENERAL SURGERY. Ed. 3. By George A. Higgins, M.D., Associate Professor of Surgery, University of Kansas School of Medicine; Lecturer in General Surgery and Surgical Technique, University of Kansas City School of Dentistry; and Thomas G. Orr, Jr., M.D., Associate in Surgery, University of Kansas School of Medicine, Kansas City, Missouri. 1016 pp. 1990 illustrations on 835 figures. Price $20.00. W. B. Saunders Co., Philadelphia. 1958. .....

This book is the revised (third) edition of the fine operative manual written by Dr. Thomas G. Orr, Sr., in 1944. It was in the process of revision by Dr. Orr when he died, the revision being completed ably by his students, the present authors.

The book includes a tremendous field of operative procedures which are well proven, and many which are still in the process of development. Because of the large number of procedures described, detail has been omitted in many. There is detail, however, in many common operations described. This gives the book great value for those who do not do a great volume of surgery. The major procedures, such as aortic grafting, are described in summary. However, a well selected bibliography at the end of each general system refers the reader to as much detail as he will ever need.

The illustrations are satisfactory and do much towards describing the operations. The original art work is well reproduced. Borrowed illustrations are mediocre to poor in their reproduction.

The book is a fine reference for the student and surgical house officer. It is valuable for the physician who does little or no surgery, as a résumé of procedures. The practicing surgeon will find its usefulness limited because of the vast amount of material covered in insufficient detail.

J. Thomas Payne, M.D.

DIAGNOSTIC MEDICAL PARASITOLOGY. By Edward K. Markell, Ph.D., M.D., Assistant Professor of Infectious Diseases, Division of Parasitology and Tropic Diseases, Department of Infections Diseases, School of Medicine, University of California, Los Angeles; and Marietta Voge, M.A., Ph.D., Assistant Professor of Infections Diseases, Division of Parasitology and Tropic Diseases, Department of Infectious Diseases, School of Medicine, University of California, Los Angeles. 276 pp. 115 figures, 5 in color. Price $7.00. W. B. Saunders Co., Philadelphia and London. 1958.

After a brief period of looking parasites more or less in the eye during World War II, most of the looking eyes, along with the heads of their owners, seem to have gone back into the sand. Disinterest, if not rampant, is at least common. It is a little hard to understand. Parasites do exist even in temperate zones. To be sure, those vectored by arthropods are not apt to be seen, except perhaps in persons brought swiftly to stateside airports, from other climes, but intestinal parasites are not strangers here. Some believe that potentially harmful amoebae can be found in at least one of every ten patients seen in the average medical office. Perhaps, like putting a finger in the rectum, searching in the stool for evidence of parasitic infection stirs up some subconscious disrelish in those whose medical motivation is toward other portions of the anatomy and away from the unpleasantness of messing around with excreta.

This small volume by Markel and Voge can be helpful to the physician who does not wish to overlook diseases caused by parasites. It is not, however, a discussion of those diseases. The reader will have to supply his own index of suspicion. The book is exactly what its title says it is, although common clinical conditions are described briefly. It is mainly concerned with description of each parasite and with mehods used in identification. Helpful illustrations have been used liberally.

Herbert L. Hartley, M.D.

CARBON DIOXIDE THERAPY. Ed. 2. Neurophysiological Treatment of Nervous Disorders. Edited by L. J. Meduna, M.D., Professor of Psychiatry, University of Illinois, College of Medicine, Chicago, Ill. 541 pp. Price $14.50. Charles C Thomas, Springfield, Ill. 1958.

The larger part of this book, about four-fifths of it, consists of reports of carbon dioxide therapy on various psychoneurotic states. Those who have used carbon dioxide and are already convinced of its usefulness will find much to support their position in this section of the book. The contributors in general are quite enthusiastic. Those who may be more skeptical of its value will find much to criticize. One gets the impression that there are practically never any failures since all of the cases reported gained at least some measure of benefit from this form of therapy. One cannot help having some misgivings regarding this because no form of therapy can be quite as good as is implied in this section of the book. There are no reports of any real failures, and no controlled experimental design is evident in the reports.

The first section of the book deals with technique and theory and is written by Dr. Meduna. A great deal of evidence is presented concerning undeniable effects of carbon dioxide on physiologic systems but it appears at times as if the author is stretching these in order to substantiate the observed clinical effects. The chapter on "Techniques and Administration of Treatment" is clear both as to the apparatus involved and the methods of administration.

One must remember that this book appears only 11 years after the introduction of carbon dioxide therapy by Meduna in 1947. It appears that there are distinct possibilities to this form of therapy but that the specific indications have not yet been clarified and that a sound fundamental rationale for its effectiveness in certain cases has yet to be formulated.

J. M. Dille, M.D.

CRIME AND INSANITY. Edited by Richard W. Nice. 280 pp. Price $6.00. Philosophical Library, New York. 1958.

This book is more a series of essays than an integrated discussion of the problem. The editor in following his expressed desire to make ". . . no effort to limit the selection of topics discussed by contributors . . ." has sacrificed a unified approach and thorough discussion. However, he gains an interesting diversity of opinion as experts in different disciplines examine the questions of the inter-relationship of crime, insanity, the individual and society. This divergence of viewpoint and approach is one of the main assets of the book. The lack of coordination manifests itself most in the repetition of common thoughts by the various experts and is most notably lacking in the apparent omission of discussion of certain points which may have reflected divergent opinions.

In spite or because of this laissez faire approach to editing, the book is a worthwhile study in a serious sociologic problem. Most doctors will find little to help them in their everyday practice, but can gain an insight into present opinions and their logical explanation. The importance of this development in medical-legal conceptions is well-known to all who take even a passing interest in the problems of society. Psychiatrists will be particularly interested in reading the sections devoted to changing legal ideas and their relationship to psychiatric testimony.

(Continued on page 1678)

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It is not possible to make any blanket statement concerning the style, since it is as heterogeneous as the substance. Some of the authors have done a masterly job in clarity of presentation, but some are muddied by the verbiage of sociologic patois.

Paul J. Alexander, M.D.

THE NEUROLOGIC EXAMINATION — Incorporating the Fundamentals of Neuroanatomy and Neurophysiology. 2nd Ed. By Russell N. DeJong, M.D., Professor of Neurology and Chairman of Department of Neurology, University of Michigan Medical School. 1078 pp. Illustrated. Price $20.00. A Hoeber-Harper Book, Paul B. Hoeber, Inc., N. Y. 1958.

This is a second edition of a book that can truly be called different than other texts in the field of neurology. It performs efficiently a necessary function in this specialty—namely, that of teaching. It is written by a man with a vast fund of knowledge in the field and deals primarily with neurology as it should be taught at all levels of educational attainment.

It is different from the standard neurologic text in that it is not concerned primarily with pathology and pathologic changes but, instead, deals with signs and symptoms and their correlation with neuro-anatomy and neuro-physiology. This is the essence of the specialty of neurology.

Each portion of the neurologic examination is discussed in detail and the basic reasons for the different responses obtained are presented.

This is not a small monograph but is a book of reference proportions, composed of 1,078 pages.

I would recommend this text particularly to those who see occasional neurologic problems and wish a ready reference for anatomic and physiologic correlation of their clinical findings.

John R. Mullins, M.D.

ELECTROCARDIOGRAPHIC ANALYSIS, Vol. I: BIOPHYSICAL PRINCIPLES OF ELECTROCARDIOGRAPHY. By Robert H. Bayley, M.D., Professor of Internal Medicine, Director of Heart Station, University of Oklahoma School of Medicine and University Hospitals, Oklahoma City. 237 pp. Illustrated. Price $8.00. Paul B. Hoeber, Inc., 1958.

This book is volume I of a projected two volume set. As stated in the title, this volume concerns biophysic principles. The second volume is to deal with the clinical applications of electrocardiography.

The author explains the formation of the various electrocardiographic wave forms and their projections as vectors on the triaxial reference system. The book presents a rather formidable first impression in that numerous equations suggest that a knowledge of physics is a prerequisite to understanding the contents of the book, and this alone usually scares away the majority of physicians. In addition, there is a glossary of abbreviations and Greek letter symbols which covers nine pages, and with which the reader must first familiarize himself before he can understand the contents.

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Nonetheless, once this difficulty is overcome the book becomes quite readable and is really not as formidable as it first appears. Very logical and basic explanations are given for the various abnormal electrocardiographic wave forms. The subjects of myocardial infarction, peri-infarction block, and primary and secondary T-wave changes are particularly well covered in my opinion.

The physical aspects of the book are especially inviting; it is very attractively bound with excellent illustrations, both diagrams and reproductions of tracings. The subject matter is well organized and it is not repetitious.

It is certainly not a book with which one could "brush up" on a superficial knowledge of electrocardiography, but it will reward anyone who wishes to reinforce his basic concepts of the formation of electrocardiographic patterns. No attempt is made to cover abnormalities of rate and rhythm. I am looking forward with great interest to the second volume which will deal with the clinical applications of these principles.

John D. Collins, M.D.

CIBA FOUNDATION SYMPOSIUM ON CEREBROSPINAL FLUID—Production, Circulation and Absorption. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch.; and Cecilia M. O'Connor, B.Sc. 335 pp. 141 illustrations. Price $9.00. Little, Brown & Co., Boston. 1958.

This small volume (which, like most current medical books, is overpriced) offers the interested reader a considerable return for the time invested. The current status of fact and speculation regarding cerebrospinal fluid physiology is well covered by an impressive panel of experts, not all of whose views are non-controversial.

The book, like the symposium of which it is a record, is not designed as a "practical" work, in the sense that one can refer to it to solve problems arising in the course of patient care. Rather it brings together the knowledge and opinions of a group of men whose interests have dictated energetic labors on certain aspects of the cerebrospinal fluid. Thus, although any physician who sees patients with central nervous system disease may find useful data, the individuals to whom this book will be of greatest use is the specialist in nervous system physiology, whether he be interested in clinical medicine or in basic science.

Lawrence M. Knopp, M.D.

CORRELATIVE NEUROANATOMY AND FUNCTIONAL NEUROLOGY. Ed. 9. By Joseph G. Chusid, M.D., and Joseph J. McDonald, M.S., M.Sc.D., M.D., Dean of Medical Faculty, American University of Beirut, Lebanon; Formerly Professor of Surgery, Columbia University, New York. Illustrated by Ralph Sweet. 344 pp. Price $4.50. Lange Medical Publications, Los Altos, Calif. 1958.

The authors and publishers of this book may look with pride upon the product of their labors. It is a volume designed to orient the physician in neurology and it performs this admirably. It is lucid throughout and places emphasis on those aspects of the basic neurologic sciences which are of practical importance. It makes no pretense at being a reference work for theoreticians. I believe "Correlative Neuroanatomy and Functional Neurology" is the book which best satisfies the needs of the medical student during his clinical years, the house officer during his training, and the general practitioner and internist in his daily practice. The diagrams and drawings are of the highest order, culled from the most authoratative sources and reproduced with clarity. The book is inexpensive but sturdy (paperback cover). Criticism might be made of the brief section on chronic subdural hematoma and internal carotid artery thrombosis, entities which are of increasing clinical import. There are excellent brief discussions of electromyography, cystometry and audiometry, but perhaps too much space is given to electroencephalography. The index is excellent.

Gerald R. Nowlis, M.D.

PHYSICS FOR THE ANAESTHETIST—Including A Section on Explosions. Ed. 2, By Sir Robert Macintosh, D.M., F.R.C.S.E., F.F.A.R.C.S., M.D. (hon. causa) Buenos Aires and Aix-Marseilles, Nuffield Professor of Anaesthetics, University of Oxford; William W. Mushin, M.A., M.B., B.S., F.F.A.R.C.S., Professor of Anaesthetics, Welsh National School of Medicine, University of Wales; Formerly First Assistant, Nuffield Department of Anaesthetics, University of Oxford; and H. G. Epstein, M.A., Ph.D., F.F.A.R.C.S., First Assistant, Nuffield Department of Anaesthetics, University of Oxford. 443 pp. Price $15.50. Charles C Thomas, Springfield, Ill. 1958.

Anesthesiologists everywhere will welcome the return of this textbook in its second edition after having been out of print for five years. Its success in reviewing and demonstrating applications of elementary physics to the behavior of anesthetic gases and to mechanics of anesthetic apparatus has made it indispensable to those seeking a clearer understanding of them. It will be sought after especially by those preparing for anesthesia specialty board examinations.

The authors—all originally at Oxford, England—have succeeded in accomplishing the notoriously difficult task of reconciling a reasonable degree of scientific accuracy with simplicity, brevity and readability. The occasional use of peculiarly British terms, such as "earthed" (electrically grounded), does not detract appreciably from the value of the textbook in the United States.

Entire chapters are devoted to clarify physics of gaseous density, specific heat, vaporization, heat loss, latent heat of crystallization, gas laws, reducing valves, flow of fluids and gases through tubes and orifices, diffusion and osmosis, physical data and conversion factors. Reference to the newer anesthetic, halothane (Fluothane), is missing.

Four chapters have been added to this edition on oxidation, combustion and explosions. This new section contains much valuable information for those who must concern themselves with explosive hazards in operating rooms. However, the style of some of the material in these new chapters is not consistent with the elementary, easily-assimilated approach of the others, nor have the authors reverted here to the orthodox approach of other physics textbooks. To me, the result was somewhat disappointing. This, however, is a minor detraction from this otherwise splendid text.

The format and printing are excellent. It is replete with colored illustrations which are unusually effective in explaining abstract physical principles and for diagraming the inner works of anesthetic equipment.

Physics for the Anaesthetist should be a part of every anesthesiologist's library and will be of value, as well, to others active in related fields, such as inhalation therapy and pulmonary function studies.

Kenneth F. Eather, M.D.

A TEXTBOOK OF PSYCHOLOGY. By Donald Olding Hebb, Professor and Chairman, Department of Psychology, McGill University, 276 pp. 78 figures. Price $4.50. W. B. Saunders Company, Philadelphia and London. 1958.

This college textbook, clearly conceived, well written, and excitingly challenging, is a definite improvement over several other texts of which I am aware. I tested it on my son, who had just taken a course in psychology and his response was: "Why, this makes psychology interesting."

The material is dealt with in such a manner that the student is invited to constantly expand his views and raise his sights. It encourages him to seek the unknown around the next corner. It leaves with him a feeling that we are indeed "wonderfully and fearfully made."

The chapter headings in this book are as follows: 1. Behavioristics and the study of the mind; 2. mental processes: the inference from behavior; 3. modes of sensory control: reflex and mediating process; 4. the nervous system; 5. neural transmission; 6. heredity, maturation, early learning; 7. problems of learning and memory; 8. motivation: needs, drives and emotions; 9. perception, knowledge and response; 10. problems relating to thought; 11. statistical thinking; 12. problems of measurement; and 13. psychology and the scientific method.

The writer attempts to avoid dogmatism, and admits in the closing paragraphs that, "We have hardly begun to understand the human mind. The complexity of the events controlling behavior is too great to be analyzed in terms of nerve impulses or the detailed relations between specific structures of the CNS."

We are reminded of St. Paul's description of his own mind and behavior: "My own behavior baffles me. For I find myself not doing what I really want to do but doing what I really loathe . . . I often find that I have the will to do good, but not the power. . . . When I come up against the Law, I want to do good, but in practice I do evil. My conscious mind wholeheartedly endorses the Law, yet I observe an entirely different principle at work in my nature. This is in continual conflict with my conscious attitude, and makes me an unwilling prisoner to the law of sin and death . . . It is an agonizing situation . . ." (Phillips translation).

When all is said and done, does scientific materialism offer a satisfying answer to the problem of understanding and helping the human personality in need?

Ivar W. Birkeland, M.D.

BLOOD GROUPS IN MAN. Ed. 3. By R. R. Race, Ph.D. (Cambridge), M.R.C.S. (England), F.R.S., Director, Medical Research Council Blood Group Research Unit, The Lister Institute, London; and Ruth Sanger, Ph.D. (London), B.Sc. (Sydney), Medical Research Council Blood Group Research Unit, The Lister Institute, London. Foreword by Professor Sir Ronald Fisher, F.R.S. 377 pp. Price $8.50. Charles C Thomas, Springfield, Ill. 1958.

In the field of blood grouping, Drs. R. R. Race and Ruth Sanger hold unquestioned pre-eminence. Since 1950, when the first edition of their book appeared, this famous pair have maintained a world-wide reputation as the authorities to whom one turns when faced with difficult problems in the identification of red cell antigens and antibodies.

In recent years, blood group investigation has grown in proportion to the increased numbers of blood transfusions given and the newly-awakened interest in medical genetics. As a result, the blood group systems (which were nine in number and fairly readily understood in the second edition of this book) have increased to eleven and have become much more complex. It is no longer possible to ignore such phenomena as gene mutations, modifying genes, suppressor genes, gene deletions, and apparent position effect of one gene on another.

Faced with the problem of fitting these and many other phenomena into a pattern which is at once understandable and reasonable, the authors have succeeded in clarifying a great deal of heterogeneous information which has appeared in the literature since their previous book. Their delightful style has not failed them, making what could be difficult reading into a pleasant experience.

Race and Sanger are the first to admit that there remain many perplexing serologic puzzles which defy explanation at the present time. This is particularly obvious in their chapter on the Lewis groups which contains statements of disarming frankness such as "We try to think of Leb as little as possible" or "Pettenkofer has a theory, but it is in German and it beats us: Lewis theories are difficult enough in English."

Of especial value are the sections on the ABO and Rh blood group systems. The latter has been masterfully confined within a single chapter in spite of the introduction of a great deal of new material. By referring to their earlier editions or to original papers, lengthy discussions have been avoided, leaving a readily-digested nucleus of important information.

Blood Groups in Man has become a classic, and the third edition is an absolutely essential addition to the bench of the laboratory worker in this field and to the library of anyone whose interests include blood transfusion, hematology, serology, or genetics.

Eloise R. Giblett, M.D.

Component Society Monthly Meetings

OREGON

BENTON COUNTY
Pres., Charles E. Reed, Corvallis
Sec, J. N. Furst, Corvallis
First Monday—6:30 p.m.—Benton Hotel, Corvallis

CENTRAL OREGON
Pres., Harry E. Mackey, Bend
Sec., Eugene L. White, Bend
First Monday—7:30 p.m.—Pine Tavern, Bend

CLACKAMAS
Pres., Hollister M. Stolte, Oregon City
Sec., Daniel K. Billmeyer, Oregon City
First Tuesday—6:30 p.m.—Seid's Restaurant, Oregon City

CLATSOP COUNTY
Pres., William M. Burget, Astoria
Sec., Charles L. Linehan, Astoria
Meetings irregular

COLUMBIA COUNTY
Pres., Eugene P. Tupker, St. Helens
Sec., O. L. Zeschin, St. Helens
No regular schedule—7 p.m.—St. Helens

DOUGLAS COUNTY
Pres., Robert R. Mooers, Roseburg
Sec., William D. Holst, Roseburg
Second Tuesday—6:30 p.m.—Roseburg Country Club

EASTERN OREGON
Pres., Jules F. Bittner, Pendleton
Sec., J. Ralph McDonald, Pendleton
Annual Meeting Only—June—Pendleton

JACKSON COUNTY
Pres., Oscar A. Heyerman, Medford
Sec., Earl L. Lawson, Medford
Second Wednesday—7 p.m.—Rogue Valley Country Club

KLAMATH COUNTY
Pres., William G. Holford, Jr., Klamath Falls
Sec., Robert D. Payne, Klamath Falls
Second Tuesday—7 p.m.—Klamath Falls

LANE COUNTY
Pres., Keith D. McMilan, Eugene
Sec., Virgil W. Samms, Eugene
First Tuesday—6:30 p.m.—Eugene Hotel

LINCOLN COUNTY
Pres., M. Gruber, Toledo
Sec., A. L. Chaimov, Toledo
No regular schedule—7:30 p.m.—Newport

LINN COUNTY
Pres., H. P. O'Neill, Albany
Sec, Robert I. Daugherty, Lebanon
First Thursday—6:30 p.m.—Red Hat Cafe, Albany

MID-COLUMBIA
Pres., W. T. Edmundson, Hood River
Sec., John M. Campbell, The Dalles
Second Tuesday—6:30 p.m.—Alternate between Hood River and The Dalles

MULTNOMAH COUNTY
Pres., Werner E. Zeller, Portland
Sec., Verner V. Lindgren, Portland
First Tuesday (Oct., Nov., Dec., Feb., Mar., May)—6 p.m.—Hotel Multnomah

SOUTHWESTERN OREGON
Pres, Paul E. Parker, North Bend
Sec., Douglass S. Johnson, Coos Bay
Third Wednesday—8 p.m.—Coos Country Club

TILLAMOOK COUNTY
Pres., Howard Kaliher, Tillamook
Sec., J. P. Brady, Tillamook
Third Friday—7 p.m.—Victory House

UMATILLA COUNTY
Pres., Louis J. Feves, Pendleton
Sec., Donald D. Smith, Pendleton
Third Tuesday—7:30 p.m.—Pendleton Country Club

UNION COUNTY
Pres., Donald F. Otten, La Grande
Sec, Webster K. Ross, La Grande
On call of President

WASHINGTON COUNTY
Pres., Herbert Mason, Beaverton
Sec., N. D. Smith, Beaverton
First Monday—8 p.m.—Forrest Hills Country Club, Cornelius

YAMHILL COUNTY
Pres., Clifford C. Peterson, Newberg
Sec., Louis L. Geary, McMinnville
First Tuesday—7 p.m.—Oriental Garden, McMinnville

WASHINGTON

BENTON-FRANKLIN
Pres., Jack D. Freund, Kennewick
Sec., Charles G. Sutch, Richland
Third Tuesday—8:00 p.m.—Tri-City Country Club

CHELAN
Pres., Donald Phillips, Wenatchee
Sec, Robert Bonifaci, Wenatchee
First Monday—6:30 p.m.—Wenatchee Golf & Country Club

CLALLAM
Pres., John Siemens, Port Angeles
Secy., K. M. Senz, Sequim
Third Monday—8:00 p.m.—Generally Olympic Memorial Hospital, Port Angeles

CLARK
Pres., G. W. Turley, Ridgefield
Sec., Emil W. Brooking, Camas
First Tuesday—7:30 p.m.—Royal Oaks Country Club, Vancouver

COWLITZ
Pres., Marion A. Clark, Jr., Longview
Sec, Powell B. Loggan, Longview
Third Tuesday—7:30 p.m.—Place not established

GRANT
Pres., R. M. Gill, Moses Lake
Sec., Wayne L. Piper, Ephrata
Second Monday—7:30 p.m.—Moses Lake or Ephrata

GRAYS HARBOR
Pres., E. L. Calhoun, Aberdeen
Sec., James A. Moore, Montesano
Third Wednesday—6:30 p.m.—Grays Harbor Country Club

JEFFERSON
Pres., Bruce N. Brydges, Port Townsend
Sec., Clayton M. Schaill, Port Townsend

KING
Pres., Dean K. Crystal, Seattle
Sec, Hugh W. Jones, Seattle
First Monday—6:30 p.m.—Norselander Hall, Seattle

KITSAP
Pres., E. J. Munns, Bremerton
Sec., J. T. Turpin, Bremerton
Second Monday—8 p.m.—Harrison Memorial Hospital, Bremerton

KITTITAS
Pres., A. J. Grose, Ellensburg
Sec, William W Hicks, Ellensburg
First Tuesday—7 30 p.m.—Ellensburg Golf & Country Club

KLICKITAT-SKAMANIA
Pres., Robert Becker, Goldendale
Sec, Harland W. Holderby, Goldendale
No regular meetings

LEWIS
Pres., W. J. Dugaw, Toledo
Sec., C. M. VanProoyen, Centralia
Second Monday—8:00 p.m.—local hospital in Chehalis or Centralia, alternately

LINCOLN
Pres., Jesse Q. Sewell, Harrington
Sec., J E. Anderson, Wilbur
Three times annually—Dec. 1958 next meeting

OKANOGAN
Pres., Harold W. Lamberton, Brewster
Sec., Charles O. Mansfield, Okanogan
On call

PACIFIC
Pres., David D. Bronder, Long Beach
Sec., Robert A. Bussabarger, Raymond
Second Wednesday—6:30 p.m.—Bridges Inn, Raymond

PIERCE
Pres., Herman S Judd, Tacoma
Sec, Arnold J Herrmann, Tacoma
Second Tuesday—8:15 p.m.—Medical Arts Bldg. Auditorium, Tacoma

SKAGIT
Pres, Eldee L Schneider, Mt. Vernon
Sec, Maynard L. Johnson, Mt. Vernon
Fourth Monday—7 p.m —Dale's Restaurant, Mt. Vernon

SNOHOMISH
Pres., Kenneth O. Barnes, Marysville
Sec., James A Otto, Everett
First Tuesday—7:30 p.m.—Everett Golf & Country Club

SPOKANE
Pres, Kenneth O. Barnes, Marysville
Sec., Joseph B Finney, Spokane
Second Thursday—7:30 p.m.—Blood Bank Auditorium, Spokane

STEVENS
Pres, W. J. Stark, Colville
Sec, Merle B Snyder, Chewelah
First Tuesday—8 p.m.—Chewelah and Colville alternately

THURSTON-MASON
Pres., Jean M. Burkhart, Olympia
Sec, Thomas R. Hazelrigg, Olympia
Fourth Tuesday—Olympia Country and Golf Club

WALLA WALLA VALLEY
Pres., Robert A. Campbell, Walla Walla
Sec, John B. Adams, Walla Walla
Second Thursday—6:30 p.m.—Grand Hotel, Walla Walla

WHATCOM
Pres., Neil D. Adams, Bellingham
Sec, Donald H Boettner, Bellingham
First Monday—7 p.m.—Leopold Hotel, Bellingham

YAKIMA
Pres., Fred L. Burrows, Yakima
Sec., Stanley R. Durham, Yakima
Second Tuesday—6:30 p.m.—Bennington's Holiday Resaurant, Yakima

IDAHO

BEAR RIVER
Pres., E. E. Herron, Grace
Sec., Allen H. Tigert, Soda Springs
First Friday—7:30 p.m.—Meetings rotate—Preston, Soda Springs and Montpelier

BONNER-BOUNDARY
Pres., Helen Peterson, Sandpoint
Sec., Fred Marineau, Sandpoint
Second Wednesday—12:30 p.m.—Bonner General Hospital, Sandpoint

IDAHO FALLS
Pres., Curtis Waid, Idaho Falls
Sec., James Douglas Davis, Idaho Falls
Second Friday—Every other month—6 p.m.—Bonneville Hotel

KOOTENAI-BENEWAH
Pres., D. Theron Knight, Coeur d'Alene
Sec., E. R. W. Fox, Coeur d'Alene
First Tuesday—6:30 p.m.—Announced in advance of meeting

NORTH IDAHO
Pres., E. J. Baldeck, Lewiston
Sec., Lester Crismon, Lewiston
Third Wednesday—6:30 p.m.—Ballinger Hotel, Lewiston

SOUTH CENTRAL
Pres., Bernard L. Kreilkamp, Twin Falls
Sec., Fred T. Kolouch, Twin Falls
Second Tuesday—7:30 p.m.—Varied

SOUTHEASTERN
Pres., Louis G. Bush, Pocatello
Sec., John E. Comstock, Pocatello
Thursday (announced)—7 p.m.—Bannock Hotel, Pocatello

SOUTHWESTERN
Pres., George E. Davis, New Plymouth
Sec., Edward J. Kiefer, Boise
Thursdays—Announced in advance of meeting

UPPER SNAKE RIVER
Pres., W. A. Melcher, Ashton
Sec., B H. Passey, Rexburg
First Monday—Dinner meeting—7:30 p.m.—Variable

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MEETINGS OF MEDICAL SOCIETIES

American Medical Association . . . Atlantic City, June 8-12, 1959

Clinical Meetings

Minneapolis, Dec. 2-5, 1958 — Dallas, Dec. 1-4, 1959

Oregon State Medical Society . . . . . September 23-25, 1959, Medford
Pres , H. A. Dickel, Portland — Sec., M. H. Parrott, Portland

Washington State Medical Association . . . . Sept. 13-16, 1959, Seattle
Pres., E. L. Calhoun, Aberdeen — Sec., Wilbur Watson, Seattle

Idaho State Medical Association . . . . . Sun Valley
June 14-17, 1959 — June 15-18, 1960
Pres , D. K. Warden, Lewiston — Sec., M. D. Gudmundsen, Boise

Alaska Territorial Medical Association . . . . . Juneau, March 19-21, 1959
Pres., W. M. Whitehead, Juneau — Sec., R. B. Wilkins, Anchorage

Pacific Northwest Obstetrical and Gynecological Association . . . . Banff
July 20-24, 1959
Pres , A. Agnew, Vancouver, B C. — Sec., C. L. Fearl, Portland

North Pacific Society of Internal Medicine . . . . . Seattle
March 21, 1959
Pres., S G Kenning, Victoria, B.C. — Sec., J H. Crampton, Seattle

OREGON

Oregon Academy of General Practice . . . . . Portland, Sept. 10-12, 1959
Pres., Robert H. Tinker, Portland

Oregon Academy of Ophthalmology and Otolaryngology — Fourth Tuesday (Sept. through May), Henry Thiele's, Portland
Pres., D. de Weese, Portland — Sec., P. Myer, Portland

Oregon Dermatologic Society . . . . . Portland, Second Wednesday
(Nov., Jan.-Apr.)
Pres., T. S. Saunders, Portland — Sec., L. F. Roy, Portland

Oregon Pathologists Association—Second Wednesday, Feb., Apr., Oct., Dec. — Portland
Pres., H. Harris, Portland — Sec., J. H. Lium, Portland

Oregon Radiological Society—Second Wednesday through school year—University Club, Portland
Pres , J. W. Loomis, Portland — Sec., C. V. Allen, Portland

Oregon State Society of Anesthesiologists . . . . . Portland, Third Friday
(except June, July, Aug.)
Pres., C. H. Hagmeier, Portland — Sec , D. P. Dabson, Beaverton

Portland Academy of Hypnosis . . . . . Third Monday (Sept.-May)
Pres., D. Steffanoff — Sec., H. Clagett Harding

Portland Academy of Pediatrics . . . . . First Monday
Pres , J. P. Whittemore — Sec., L. H. Smith

WASHINGTON

Puget Sound Academy of Ophthalmology and Otolaryngology — Third Tuesday (Oct.-May)—Seattle or Tacoma
Pres , E. G. Dorland, Seattle — Sec., J. L. Hargiss, Seattle

Puyallup Valley Surgical Society . . . . . Fourth Tuesday (Sept.-May)
Pres., K. H. Sturdevant, Puyallup — Sec., V. M. Murphy, Sumner

Seattle Academy of Surgery 1959
Third Friday, Sept., Nov., Jan., Mar.
Pres., L. M. Penny — Sec., D. D. Corlett

Seattle Gynecological Society . . . . . Third Wednesday (except June, July, Aug., Dec., Feb.)
Pres., L. B. Donaldson — Sec , R. N. Rutherford

Seattle Pediatric Society . . . . . Third Friday (Sept.-May), College Club
Pres., Paul Betzold — Sec., C Razgay

Seattle Surgical Society . . . . . Jan. 30-31, 1959
Fourth Monday, Sept.-May
Pres , W. E. Watson — Sec., W. O. Mills

Spokane Academy of General Practice . . . . . Dec. 6, 1958
Pres., D. W. McKinlay — Sec., R. H. Ganz

Spokane Society of Internal Medicine . . . . . April 10, 1959
Pres., O. C Olson — Sec., R. P. Parker

Spokane Surgical Society . . . . . April 11, 1959
Pres , R. H Humphreys — Sec , E. B. Coulter

Tacoma Academy of Internal Medicine . . . . . March 14, 1959
Pres., R. E. Lane — Sec , R. F. Barronian

Tacoma Surgical Club . . . . . May 2, 1959
Pres , M. L. Johnson — Sec., R. W Osborne

Washington Academy of General Practice, Longview, May 10-12, 1959
Pres., D. Fritz, Cathlamet — Sec., J. E. Gahringer, Jr., Wenatchee

Washington State Obstetrical Association . . . . . Seattle, April 11, 1959
Pres., G G Rice, Seattle — Sec., D. M. McIntyre, Seattle

Washington State Radiological Society . . . . . Seattle
Fourth Monday of each month, Sept. through May
Pres , R. Kiltz, Everett — Sec , W A Chesledon, Seattle

Washington State Society of Anesthesiologists . . . . . Fourth Friday
(Sept.-May)
Pres , W. H. Pratt, Tacoma — Sec., L. G. Morley, Tacoma

Washington State Society of Internal Medicine October, 1959, Seattle
Pres , G. M. Whiteacre, Tacoma — Sec., W. Spickard, Seattle

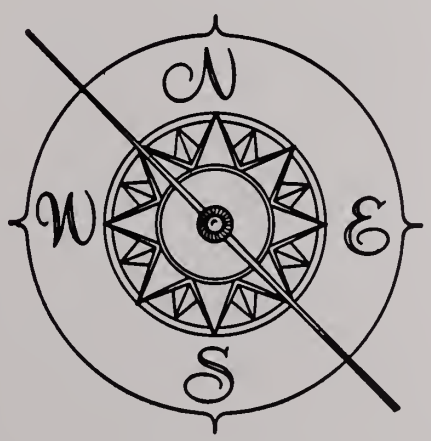
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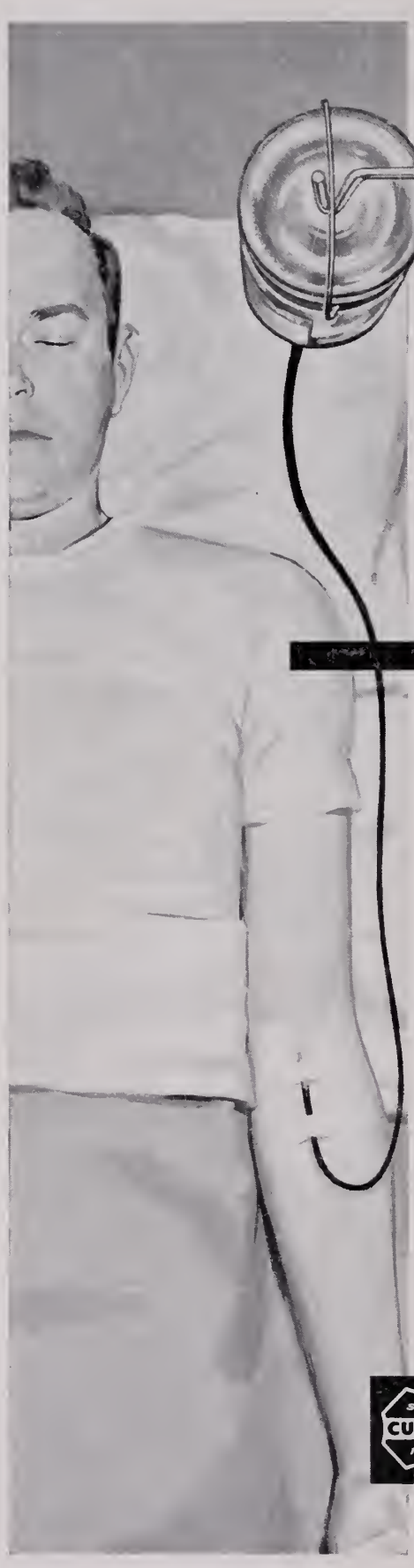
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Initial dose, 1 tablet t.i.d., p.c.

Rauwiloid® + Hexamethonium
alseroxylon 1 mg. and hexomethonium chloride dihydrate 250 mg.
in severe, otherwise intractable hypertension. Initial dose, ½ tablet q.i.d.

Both combinations in convenient single-tablet form.

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REGAIN

ELECTROLYTE BALANCE PROMPTLY

- improve blood volume
- restore circulatory and renal efficiency
- control or prevent hypopotassemia

with **POLYSAL**® for replacement

Electrolyte Composition
(milliequivolents per liter)

CATIONS		ANIONS	
Sodium	140 mEq.	Chloride	103 mEq.
Potassium	10 mEq.	*Bicorbonote	55 mEq.
Colcium	5 mEq.		
Mognesium	3 mEq.		

*Obtoined from metobolic conversion of ocetote ion.

Avoiloble in Distilled Woter or 5% Dextrose in 250, 500, 1000 cc. Softiflosks.®

MAINTAIN

ELECTROLYTE BALANCE SMOOTHLY

- eliminate "saw-tooth" effect to prevent water intoxication, edema, overloading
- supply basic needs of electrolytes
- provide uniform hydration

with **POLYSAL®-M** for maintenance

Electrolyte Composition
(milliequivolents per liter)

CATIONS		ANIONS	
Sodium	40 mEq.	Chloride	40 mEq.
Potossium	16 mEq.	*Bicorbonate	24 mEq.
Colcium	5 mEq.		
Magnesium	3 mEq.		

*Obtoined from metobolic conversion of loctote ond ocetate ions.

Avoiloble in 2½% Dextrose in Softiflosks®—250, 500 cc.; in 5% Dextrose in Softiflasks—250, 500 ond 1000 cc.; in 10% Dextrose in Saftiflosks—500 ond 1000 cc.



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